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U. OGDEN, M.D., - - - - EDITOR.

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THE "ANNUS MEDICUS," 1877.

Memorable and eventful in the history of Medicine as was the year 1876, no mean successor has been found in the twelve months which have just elapsed. Unmarked by startling discoveries, undisturbed by the fulmination of new doctrines seeking to overthrow the very basis of the Science, it has been remarkable for steady progress and advance, proceeding step by step, ever *excelsior*, guided by the light of reason and certified by the test-stone of experience, "proving all things, and holding fast to that which is good." Purposing to take a retrospective glance over the past year's contribution to our knowledge of Medical Science in its various branches, we do not forget that the subject is a long one (*ars longa, vita brevis*) and the space at our disposal necessarily restricted; we shall therefore enter on our account without further prelude or observation.

ANATOMY AND PHYSIOLOGY.

In the domain of *Anatomy* and *Physiology* advances have been made, amongst which we note: 1st. In connexion with the nervous system—the series of very laborious investigations and interesting deductions of Messrs. Charcot, Pitres, and Bourdon, of Paris, and Dr. Broadbent of London, on the subject of cerebral localizations, too long to quote. Prof. Langendorf has communicated to the new series of Dubois Reymond's *Archiv de Physiol.* an interesting account of his investigations on the subject of Inhibitory Nerves, the existence of which has been known since the observations of the brothers Weber on the Par-vagum. He establishes that the reflex inhibitory influence of each half of the brain extends over the opposite side of the body, and that its seat is not only in the *lobi optici*, but also in the cerebral hemispheres. Dr. Tyson of Philadelphia records (*Amer. Jour. of Med. Sciences*, July, 1877) a curious case occurring in his practice, the observation of which fully confirmed the view that the cerebellum is a centre of co-ordination of muscular movement; and another case recorded in Virchow's Archives, by Dr. Kohts of Strasbourg, goes to show that the *corpora quadrigemina* must be added. Flourens' assertion that "the vestibulary nerve is a completely distinct pair from the auditory nerve or the *nervus cochleæ*" has been confirmed by the results of Horbaczewski's investigations on the nerves of the internal ear. M. Luys records (*Soc. de Biol.*) a case of compensatory hypertrophy of the right hemisphere found after death in a case of right hemiplegia. During the year M. Duret presented to the *Société de Biologie* drawings and injections exhibiting the very great correlation which exists between the distribution of the arteries and the physiological regions of the brain, and shewing, amongst other things, that a special artery is given off to the third convolution. The last point in connexion with the cerebral nervous system which we have to mention is the investigation undertaken by Duke Charles, of Bavaria, M.D., to refute the assertion of Popoff that white blood corpuscles were found in the brain as the result of typhus and typhoid fevers. He examined fifty brains, and the result was "that in the cortical portion of every brain, healthy or otherwise, are found numerous white blood corpuscles." These may accumulate on account of retarded circulation combined with an increased quantity of water in the brain.

2nd. In connexion with the circulatory system—the first point to attract our attention, in the year's record, is the subject of the origin and distribution of animal heat which has been under investigation at the hands of M. Claude Bernard. This eminent physiologist has determined that the "arterial temperature remains unchanged in the aorta and large arteries, whilst that of venous blood varies considerably at different points of the venous system; at the surface of the body, near the four large joints, and at the lower part of the neck, venous blood is colder than arterial, while in the heart it is much warmer." M. Bernard concludes from his experiments "that animal heat is generated in all the tissues, in the muscles, nerves, nervous centres, glands, &c." Contraction of muscle, and secretion from grandular structure are invariably preceded by diminution of temperature, quickly followed by elevation. Mere vasomotor excitement may increase capilary circulation, but is attended with diminution of temperature, while thermic action is always attended with elevation of temperature. The influence of the spinal cord on temperature has been the subject of experiment by M. Parinaud of Paris from which he concludes that "the spinal cord influences animal heat by means of nerves distinct from the vaso-motor system." He does not, however, "invent a special system of Calorific nerves," nor any "specially localized thermic centre in the cerebro-spinal axis," nor does he deny the existence of "the moderator centres of calorification" of Tscheschichin.

M. Albertoni has shewn (*Brown-Sequard's Archiv. de Phys.*) that blood transfused from one animal to another of the same species forms living tissue and constitutes a blood-graft. That in an animal of another species the corpuscles dissolve, their colouring matter is eliminated by the urine, and their stroma blocks up the capillaries, giving rise to serious accidents or even death. The serum alone however may be transfused with impunity. On the 14th of June, before the Royal Society, Dr. Pavy described a new gravimetric method for the quantitative determination of sugar in the blood. It appears from Pavy's results that Bernard's figures are invariably too high, and that the decoloration test is radically fallacious in application. "No material difference exists in the amount of sugar contained in arterial and venous bood," and Bernard's erroneous views to the contrary must be rescinded. M. G. Hagera presented to the *Acad des Scien.* a note upon the character of the blood of new-born infants. It appears from this that in them the blood leaving the capillaries is almost as dark as the venous blood; that some of the red corpuscles are larger, some smaller than those of the adult; that the number of red corpuscles per millimetre is increased on the average by 489,000, if the umbilical cord be not tied, until pulsation in it has ceased. One of the most striking features of infantile blood is the fluctuations in its anatomical composition both in the variety of corpuscles and their number. Dr. Brigidi of Florence, records (*Commentario Clinico de Pisa*) a case of persistence of the Thymus Gland in a man aged 29 who had died of Phthisis under his care. Prof. Preyer of the University of Jena promulgated at the International Medical Congress at Geneva his views upon the cause of sleep. He holds that the somnolent state is due to the accumulation in the blood of lactic acid, creatine, &c., and that awakening follows the complete oxidation of these substances. The experiments of Rosenbach of Jena upon the mechanism of Respiration go to shew that the ordinary movements of respiration are induced by the quality of the blood in the vessels of the medulla oblongata, or, as Rosenthal expressed it, by the venosity of the blood in these vessels; and that the vagus nerves are really inhibitory nerves for the acts of respiration. For the cutaneous system, B. Luchsinger has experimentally shewn "the direct functional dependence of the sweat secretion on certain nerve irritations, and thus places the relation of this obscure process to the nervous system on the same footing as Ludwig, Bernard, and Heidenhain have done for other glands and secretions. On the side of the alimentary system, M. Richet's investigations in a case of gastric fistula in one of the Paris Hospitals shew that the sensation of hunger does not depend upon either the acidity of the gastric juice or emptiness of the stomach; it also appears that there is little or no free lactic acid in the gastric juice, and that the acidity of the secretion depends upon the

presence of Hydrochloric acid. With reference to the hepatic functions, M. Brouardel's labours (*Arch de Phys.*) demonstrate that urea is formed almost entirely, if not wholly, in the liver. Dr. B. F. Lautenbach narrates (*Phil. Med. Times*) the history of certain experiments which he conducted in conjunction with Prof. Schiff of Geneva, which appear to demonstrate a new function of the liver. We append his conclusions. (1) The liver has for one of its functions the office of destroying certain of the organic poisons. (2) A poison is constantly being formed in the system of every animal which it is the office of the liver to destroy. At the International Medical Congress at Geneva, Prof. Schiff read a paper upon the function of the spleen. It appears hence that extirpation of this organ exercises no durable influence on the quantity of the white or red blood corpuscles. It also appears that during digestion the spleen prepares a ferment which enters with the blood into the pancreatic tissue, and there meets with a substance which it transforms into pancreatic pepsine, which is capable of digesting albuminoid matters. The pancreatic juice loses its property of digesting albuminoid matters after extirpation of the spleen, but its other digestive functions remain unimpaired. Dr. Chas. Kelsey, of New York, reports a case of complete transposition of the viscera making the 78th of which a record has been kept. When speaking of the circulatory system, we should have mentioned the invention by Dr. Octavius White, of New York, of an exceedingly delicate manometer, which he terms a hæmarumascope and which promises to be of much assistance in the investigation of certain points pertaining to the circulation It has long been admitted that menstruation may occur without ovulation, but it has been reserved for M. Sinety to shew that ovulation could occur in the absence of menstruation. He described before the *Société de Biologie* the anatomical characters of the uterus and ovaries of a woman who had never menstruated. She was 38 years of age; had presented all the signs of puberty from the age of 10, but never had any catamenial flow. The cavity of the uterus was formed almost entirely by that of the neck, the cavity of the body remaining in a fœtal condition, and its mucous membrane infantile. The ovaries presented many false *corpora lutea*. Liebig's and Voit's contradictory views as to the source of the fat in the human body have both been confirmed, and thus reconciled, by the investigations of Messrs. Lawes and Gilbert published in the *Journal of Anatomy*, from which it would appear that the fat of the body is formed from both the nitrogenous constituents and the carbohydrates of the food.

Amongst the new works, or new editions of old works, on Anatomy, Physiology and Microscopy which have appeared during the year, we may mention :—"4th Edition of the Microscope in Medicine," by Lionel Beale; 3rd edition of "the Microscopist," by J. H. Wythe, A.M., M.D., Philadelphia; "An Introduction to Practical Histology," by Geo. Thin, M.D.; "A course of Practical Histology," by Albert Schaefer of University College,—an admirable guide to histological work: and a 2nd edition of Prof. A. Robin's "*Traite du Microscope et des injections et leur Emploi*,"—the completest work upon the microscope, its use, and mode of use, in any language; "A Text-book of Physiology," by Michael Foster; and a 5th edition of Carpenter's "Manual of Physiology;" a 5th edition of Holden's "Human Osteology;" and a 2nd edition of his "Landmarks;" "The Student's guide to the Anatomy of the Joints," by H. Morris; Part II. of Turner's "Introduction to Human Anatomy, including the Anatomy of the Tissues"—part I. of his valuable work appeared in Black's Encyclopœdia Britannica in 1875; also part 1st of an Atlas of Human Anatomy," by Rickman J. Godlee; and Bellamy's Edition and Translation of Wilhelm Braune's celebrated Atlas of Topographical Anatomy." In this latter book the plates are all taken from plane sections of the frozen body; they are taken from the original figures of life size by photography and reduced. The last work to be mentioned in this section is "The Morphology of the Skull" by W. K. Parker, F.R.S., in which Mr. Parker, universally admitted to be, next to his master Huxley, the most eminent living Biologist, although assiduously engaged in the cares of active practice, has yet found time to prepare the only concise, complete, and intelligible account of the struc-

ture and homologies of the vertebrate skull extant—a fit completion of the gigantic labours of Rathke and Owen.

MATERIA MEDICA AND THERAPEUTICS.

Although the additions to the Materia Medica during the year have not been many, and the armamentarium of the Therapeutist has not undergone any unusual increment of bulk, yet the importance of this department has once again asserted itself, and the twelve months' work accomplished has not been devoid of fruit. The influence of *salicin, salicylic acid,* and the *salicylate of soda*, so highly lauded in the previous year with all the enthusiasm of new discoveries, has been amply tested and approved by the last twelve months' experience. Since the introduction of these remedies into general use, acute rheumatism, gout, sciatica, hyperpyrexia in its various forms, &c., have lost half their terrors in losing all their pain, and having abstracted one great element of danger—excessive heat. Dr. Hermann Weber, at the Clinical Society, asserted that, as antipyretics, these remedies were not inferior to quinine, except in ague; and M. Germain Sée, at the *Acadèmie de Medécine*, regarded them as second only to quinine and digitalis: this latter writer insists that they are rapidly eliminated from the system, and are to be found in the urine a few minutes after their ingestion, hence the necessity for small and repeated doses (8 grains per hour). Sée and other French writers, Kunge, Hoffmann, and many Germans, have strongly advocated their efficacy in gout and neuralgia, and attribute their beneficial action chiefly to what they term their *analgesic* properties; whilst they have been highly extolled in the treatment of acute and sub-acute rheumatism, and various diseases attended with hyperpyrexia, by such English writers as Sir Wm. Jenner, Drs. Maclagan, Pollock, Curnow, Ringer, Broadbent, and a host of others. Salicylate of soda has been advantageously employed by Bade in mastitis, and by several French experimenters in locomotor ataxia, for the relief of pain in the limbs. Ebstein of Göttingen, first recommended this salt in diabetes mellitus; and in two cases under the care of Warnock, of Kiel, it succeeded in entirely removing the symptoms, temporarily at all events. P. K. Pel (*Deutsch Archiv. für Klin. Med.*) has found it to be a complete failure in the treatment of intermittent fever. *Jaborandi* continues to sustain its reputation as one of the most potent diaphoretics and sialogogues. It is said to afford great relief in Bright's disease by the copious diaphoresis it produces. The experiments of MM. Charcot and Bourneville, at *La Saltpetriere*, seem to establish the deterrent and even curative efficacy of the *nitrite of amyl* in attacks of epilepsy and hystero epilepsy. Several cases reported during the year also show that this remedy must be regarded as possessing a powerful antidotal effect in cases of chloroform narcosis; whilst its potency in relieving spasm and vascular tension is now placed beyond a doubt by the numerous recorded witnesses of its successful employment in cases of spasmodic asthma, uraemic asthma, hiccough, &c. The value of *ovarian compression* in certain hysterical conditions, and the use of *metallotherapy* as therapeutic measures, have during the year been abundantly testified to by Charcot, Russell Reynolds, Broadbent, Julius Althaus, &c. From the evidence of a scientific French Commission appointed to investigate the subject, it appears that the assertions made by Dr. Burg for the last thirty years, with reference to the power of restoring sensation to anaesthetic parts by the application of special metals in special cases, are fully confirmed. A new field for scientific investigation is hereby opened up. *Physostigmine*, now largely employed in the department of Ophthalmology in ulcerated abscesses of the cornea, in ulcus serpens, and in suppuration after operation for cataract, has lately been extolled as an antiseptic by Drs. Von Wecker and H. Schmidt Rimpler. To our French brethren we are also indebted for the introduction of the *hypodermic use of ether* in cases of collapse of all kinds. M. Verneuil and others have employed it with great success, and indeed in some cases of post partum hæmorrhage it has appeared to obviate the necessity for the transfusion of blood. From several American sources we have reports during the year of the successful employment of the *Bisulphide of Calcium* in saccharine diabetes, as orginally suggested by

Ringer. The administration of this salt nullifies the value of Trommer's test, as the urine of a healthy individual who has taken several grains of the salt will throw down the suboxide of copper when examined in the usual way. Dr. Hay, of Philadelphia, has done good service by pointing out the same fact with reference to chloroform, chloral, ferruginous preparations, and several other substances. Hitherto the therapeutic value of *glycerine* has not been sufficiently appreciated. M. Catillon has shown (*Acad. des Sciences*) that it acts as a veritable tonic, promotes the appetite and the digestive functions, diminishes the combustion of fat and nitrogenized substances, and lessens the amount of urea excreted. It does not remain in the blood, and any excess is eliminated by the urine. It promises to be of special service in the treatment of diabetes mellitus. In doses of 15 to 30 grammes (℥ss—℥j.) it acts as an efficient laxative. Fifteen to 30 grammes per day is an appropriate dose; in much larger quantities it greatly irritates the kidneys, and is poisonous. French and Italian writers during the year report gratifying results from the long continued employment of minute doses of *podophyllin* in the treatment of habitual constipation and of hæmorrhoids. The treatment of psoriasis by the method recommended last year by Dr. Buck, of the Lubeck Hospital, and which consists in applying strong acetic acid to the spots after thorough removal of the scales, has been successfully followed by Dr. Jansen, of the Belgian army. *Gelsemium*, as an anti-neuralgic (more especially for the 5th pair) has fully maintained its reputation; it has also been employed successfully to promote dilatation of the rigid *os uteri*. Its mydriatic effects on the eye, as pointed out by Ringer and Murrell, have been confirmed at Moorfield's, by Mr. Tweedy. Taken internally in sufficiently large doses it contracts the pupil: a solution topically applied dilates it. Its effects are more transient than those of atropine, and the confusion of vision less (solution grs. viij. *ad* ℥j.). During the year many cases have been reported in which *hydrobromic acid* has proved very successful in removing tinnitus aurium not only arising from the administration of quinine but from any cause whatever. The range of its use is coextensive with that of bromide of potassium. The record of many cases in the last twelve months testifies to the great value of the *resin* and *balsam of copaiba* in cases of ascites, even in those in which all other remedies have failed to reduce the effusion. *Curare*, administered by hypodermic injection (as suggested by the late Dr. Sibson), has come to be regarded as the remedy most likely to prove of use in cases of hydrophobia. Several American cases are reported in which the remedy appeared to exercise some control over the disease, and an authenticated case of cure by its use is reported by Dr. Offenburg, of Wickrath, in Rhenish Prussia. Amongst other remedies for this fell disease which have been reported as having proved of service during the year, are the *Faradaic Current* and the *Russian Vapour Bath*. Mr. Samuel McBean, of Newcastle-on-Tyne, reports three cases of typhus and typhoid fevers in which the patients appeared to be benefitted by the use of the leaves of the *Erythroxylon Cuca*. *Carbolated Camphor* has been recommended by Dr. Soulez, of Romorantin, as a dressing for wounds. It consists of carbolic acid, 15 grains, in an equal quantity of alcohol, and 37½ grains of powdered camphor; and is anodyne and antiseptic. A new remedy in skin diseases, especially inveterate tinea circinata and eczema marginatum, has been introduced from Hong Kong by Dr. J. Ivor McMurray. It is known as the fluid extract of *Tong Pang Chong*, and is said to succeed in cases in which even goa powder has failed. *Goa* or *araboa* powder (and chrysophanic acid, its active principle,) introduced by Mr. Balmanno Squire, has accomplished all its author claims for it in the treatment of inveterate psoriasis; but the indelible stain it leaves behind is an almost insuperable barrier to its general use. Faith in the purity of the chloral in our markets has been much shaken by a paper from the pen of Dr. Oscar Liebreich of Berlin, its introducer. He points out the very great danger arising from a sophistication of this drug, and asserts that that which is found in the form of the little square or oblong tablets is unfit for use. Only that occurring in the form of beads or drops should be used. The expectations formed from

the use of *croton (or butyl) chloral* in pertussis and neuralgia have not been disappointed, and great relief of suffering and distress has followed their employment. Dr. Robert Bell, by the report of a series of cases, has endeavoured to revive (or, as he supposed, introduce) the treatment of phthisis—especially in children—by the use of the *muriate of calcium* (not ordinary chloride of lime) recommended years ago by Dr. Begbie before the introduction of cod liver oil. Dr. G. A. Evans, of New York, has reported the successful use of *Cannabis Indica* in the treatment of traumatic tetanus. *Viburnum prunifolium*—the black haw—is regarded by Dr. Jenks as a useful anti-abortive; and the *grindelia robusta* has been brought forward as a potent anti-asthmatic. *Iodized chloral phenol* (resublimed iodine, ʒss.—chloral and carbolic acid—each ʒj.) is esteemed by Dr. J. P. Thomas, of Kentucky, as a valuable uterine escharotic, alterative, and local anæsthetic. A new emetic purge has been introduced by Dr. Ashburton Thompson, under the name *chrysarobin*. It is the same thing as goa powder, and from 319 observation of its action he concludes that as a prompt and thorough emetic purge it stands second to no drug or combination of drugs, a compound of tartar emetic and ipecacuanha alone excepted. *Apomorphia* has at length assumed its place as a most reliable and efficient emetic and expectorant. Dr. Luton, of Rheims, has again directed attention to the pre-eminent value of the *Phosphate of Soda* in asthma and consumption. The last remedy we intend to notice is *Transfusion*. The excellent apparatus of Dr. Aveling and more especially of Dr. Roussel, of Geneva, has so facilitated the performance, and diminished the risk, of this operation, that, as was to be expected, the number of reported cases of its successful employment has largely increased during the year. Its use has not been confined to cases of acute anæmia, from hæmorrhage, etc., but it has been resorted to in cases of chronic anæmia with admirable results. One case of death of the donor of the blood is reported, but this was only indirectly connected with the operation. In the literature of this department we have to notice the appearance of but few books during the year, owing, in all probability, to the fact that the previous year was so pre-eminently rich in this respect, having seen simultaneously the works of Ringer, Fothergill, Roberts Bartholow, and Wood. We have to mention, however, as specially worthy of reference, Dr. Spark's translation of "The Elements of Therapeutics," by Prof. C. Binz, of Bonn; and the Gulstonian Lectures on "Pharmacology in its relations to Therapeutics," by Dr. Lander Brunton. Regarding electricity as one of the constituents of the materia medica, we should mention in this connection Dr. Tibbits' work on "How to Use a Galvanic Battery."

In the domain of chemistry, the following works have appeared:—12th edition of Fownes' "Manual of Chemistry," Volumes I. and II.; "Chemical Tables for Lecture-room and Laboratory," by Wm. Valentine, F.C.S., Vol. I. of a "Treatise on Chemistry" by H. E. Roscoe, F.R.S., and C. Schorleminer, F.R.S., Professors in Owen's College.

MEDICINE AND PATHOLOGY.

The workers in the great field of medicine and pathology have during this year, as in the past, been characterized by the patient zeal and untiring industry they have displayed in the prosecution of their labours. The results have been not unworthy of the toil. Messrs. Braidwood and Vacher, have completed their report to the British Medical Association on the subject of contagium; and Dr. Wm. Roberts' address to the meeting of the Association on the same subject ably sums up all that can be said from the standpoint of the advocates of the zymotic theory. Dr. B. W. Richardson's views as to the "glandular origin" of disease are as yet too little developed to demand notice here. Bright's Disease, of course, still continues to command a large share of the attention of pathologists; and during the year another discussion occurred at the Pathological Society on the subject of the granular kidney. The two old camps still remain, the one led by Dr. Geo. Johnson and the other by Sir Wm. Gull and Dr. Sutton. Although the Johnson party had rather the best of the argument, yet the decision of the question still remains open, and Dr. Dickinson, both at the Society and in his book lately published has taken up middle

ground between the contending parties. *In medio tutissimus ibis.* Dr. Johnson in his Lumleian lectures on the structure and function of the muscular arterioles presents his case in a very favourable light, and in these he also directs attention to a form of attack heretofore barely hinted at, and which he describes under the name of uræmic asthma. Dr. Clifford Albutt, has also contributed a valuable paper on this subject. For a very ingenious hypothesis to explain the occurrence of arterial tension, &c., in chronic Bright's disease, we would refer our readers to a review of the subject at page 291 *et seq.* of the number of the *British and Foreign Medico Chir. Review* for October, 1877. The treatment of albumin uria on Donkin's plan has been successfully followed out in France by M. G. Sée and others. M. Sée gives his patients two or three litres of raw milk per diem, and continues it for months and even years. Our own experience of the milk diet is in accord with the testimony published on all sides, viz., that it greatly reduces the anasarca ; the applicability of this treatment to disease is almost unlimited, and in our own restricted experience we have seen inveterate cases of chronic diarrhœa, etc., having resisted other modes of treatment, yield rapidly and surely to an exclusively milk diet. As, from the nature of things, was to be expected, the treatment of typhoid fever by Brand's system of cold bathing has met with strenuous opposition at the hands of many French physicians, among whom M. Peter and others regard it as wholly injurious ; yet some among them admit that in cases judiciously selected it may be of use, while still others are warm advocates of the plan. In England and America it has been well received, and experience of it has generally proved favourable. Dr. Murphy, of the London Fever Hospital, has published a paper very favourable to the system and giving, what was a great desideratum, full details of the *minutiæ* of its application. It cannot be doubted from an examination of the German statistics that they include a large number of cases of febricula along with typhoid fever. Liebermeister, like other Germans, believes that iodine and calomel exert some influence on the disease in the way of diminishing its "mortality, duration and intensity." Ch. Robin has published a valuable *brochure* upon the urine in typhoid fever. M. Cuffer, of Paris, has directed attention to the influence of posture upon cardiac murmurs, and has pointed out that they are all (*intra* and *extra* cardiac alike) more audible when the patient is lying down than when he is standing or sitting up. Dr. Southey at the Clinical Society described his new plan of treating anasarca with tiny silver canulæ and capillary drainage tubes. A canula is thrust into the cellular tissue of each calf, and the serum is conducted through the tiny tubes to a vessel placed beneath the bed. The method cannot be too highly commended. The subject of Cheyne-Stokes-respiration has during the year again attracted considerable attention, and it appears that an adequate explanation of the phenomena is still wanting, notwithstanding the exegetical attempts of Von Dusch, Schweig, Prof. Laycock, Biot, Traube and Filehne. A discussion upon the subject of visceral syphilis this year occupied the Pathological Society during three sessions The debates were very instructive and added much to our knowledge of the subject, whilst at the same time they taught us how much there is yet to learn. There was evinced much difference of opinion as to the genuine existence of the disease known as syphilitic phthisis ; but in the face of the clinical evidence adduced, it would be difficult to deny its entity. The prevalence during the year of hydrophobia in England, France, and Scotland, is a sad commentary upon the mode of administration of the laws relating to preventable diseases. Within Registration-London alone, 14 deaths from this cause occurred during the year. From the three or four cases which came under Dr. Jos. Coats' observation as pathologist to the Glasgow Hospital he describes the pathological appearances of the disease as follows :— Veins of encephalon distended, surface of arachnoid smeared with blood-tinged fluid over hemispheres, and a few drachms of similar fluid in ventricles. Around the wound, skin, &c. infiltrated with round cells ; transparent globular bodies on internal wall of blood vessels. In cord and medulla oblongata, an accumulation of round cells in the perivascular spaces and around ganglion cells. Numerous amyloid bodies throughout the nervous system. This

exactly corresponds with Prof. Maurice Benedikt's account published simultaneously in Virchow's Archives. Amongst the very various symptoms of this dire disease, a very common one is mental furor, an almost invariable one is respiratory spasm. As for treatment all remedies appear to fail. There is an almost universal *consensus* of opinion as to the propriety of immediate cauterization. After the full development of the symptoms, M. Menesson has found that faradization, by placing one pole on the back of the neck and the other on the sole of the feet, produced a calm, enabling the patient to speak and swallow liquids. Dr. Ruisson speaks highly of the Russian Vapour Bath, and to the Turkish bath some cures have been attributed. An authentic case of cure by hypodermic injection of curara has been this year recorded by Dr. Offenburg of Wickrath. Dr. Matthew Charteris of Glasgow affirms that if any more cases fall into his hands, he will bleed to the point of syncope and transfuse. Epidemics of diphtheria have raged in various places during the year, Vienna, Paris, London, &c., &c. The epidemic in Vienna was of interest as presenting the results of treatment by three new remedies, neurin, tetra-methyl-ammonium-oxide, and tetrethyl ammonium-oxide, applied locally and in a few cases hypodermically. The result upon the whole was favourable, and these substances appear to be good solvents of the membrane. English practitioners, however, will probably prefer the internal administration of iron, quinine, and chlorate of potash, with the inhalation of steam, and carbolic, lactic or sulphurous acid locally. M. Chesnet has published an important thesis upon cancer of the stomach in which he shows that this disease may remain absolutely latent, or only give rise to symptoms which are commonly attributed to other diseases. Dr. Millon (*Brit. Med. Jour.*) describes a new peculiar *rale* which he calls the *Râle Mouillé;* it denotes the passage of pneumonia from the second to the third stage. He describes it as a moist *râle*, of small bubbles, confined exclusively to inspiration, softer and smoother than mucous or cavernous râles; they are all of the same volume. As a prognostic sign it is an invariable precursor of not far distant dissolution. Dr. Macgregor of Fiji describes a new form of paralysis observed in the Chinese, apparently of reflex origin, and associated with a liver parasite—the distoma sinense. Dr. Gowers, of University College, has also for the first time described in English the malady known as saltatoric spasm; he describes two cases which have fallen under his own observation, and the five other cases hitherto published in German—two by Bamberger, two by Paul Guttmann, and one by Anton Frey. The main feature of the disease is a violent clonic spasm of the legs on attempting to stand. Dr. T. J. Griffiths of the U. S. Marine Service has had a series of eighteen cases of paralysis and five of epilepsy in hospital patients, and eight of hemplegia in private practice, which he has treated exclusively by means of a seton at the back of the neck, and tonics, with beneficial results in every case. At the suggestion of Prof. Binz, Dr. Patton has made experiments with certain early flowering grasses, *Testuca Protensis*, *Dachtylis Glomerata*, and *Secale Cereale*, which go to show that the pollen of these plants does not excite hay fever. The use of inhalations in pulmonary complaints has been steadily growing in favour. Of the two most frequently employed in phthisis, creasote appears to have more effect in relieving cough, while carbolic acid is more effectual in diminishing the expectoration. It has been claimed that the early inhalation of carbolic acid will arrest the progress of pneumonia. Dr. McCall Anderson of Glasgow, claims to have cured several cases of tubercular peritonitis and acute phthisis; and insists upon the curability of tubercular diseases. Unfortunately, however, the cases he narrates would appear to admit of a different diagnosis. Messrs. Lewis and Cunningham have this year published in the *London Lancet* an account of Oriental sore or Delhi boil; they state that it does not differ from the various forms of lupus and requires the same treatment; they propose to call it *lupus endemicus*. Hydatid tumours of the liver appear not to have been uncommon, and the Journals of the year record at least a score of cases, most of them cured by a single tapping. M. Charcot has drawn attention to the fact that in paralysis agitans (Parkinson's Disease) the head does not shake, as it does in

insular sclerosis. The trembling of the limbs may, however, be communicated to the head, but, if these be held the head will be seen not to shake. Mr. Langton exhibited at the Clinical Society a man having on his arms an eruption similar to, and running the course of, vaccinia, which had been contracted from a horse suffering from "grease," described by Jenner as producing cowpox when inoculated in the cow. A case of farcy is reported as occurring at St. George's Hospital, under Dr. Dickinson. Dr. Bradbury, of Addenbrooke's hospital, Cambridge, reports a case of slow pulse, twenty-six beats per minute, occurring in syncopal convulsions. The subject of the minute anatomy of scarlet fever has been thoroughly investigated and Dr. Klein read a paper upon the subject to the Pathological Society on the 17th of April; and at the same time communicated the result of his own, as well as Prof. Axe's, investigation into pig typhoid. Prof. Osler, of Montreal, has also been engaged upon the same subject during the year. Prof. Gairdner of Glasgow, records a case of Hammond's "athetosis" which improved upon ten to twenty grain doses of chloral hydrate. Another similar case was also brought before one of the French societies. Trichinosis broke out at Neugersdorf in Saxony; forty-five persons were attacked twenty five days after eating certain diseased pork; there was, however, no fatality. An outbreak of relapsing fever occurred at Bombay this year for the first time in its history. Dr. Wm. Whitelaw of Cupar, narrates an almost unique case of anuria lasting twenty-five days and followed by recovery. The case which was reported by Dr. Geikie of this city last year and which lasted thirty days is its only parallel.

Dr. Rhys Williams records a case of rupture of the bladder in an insane patient at the Bethlem Asylum, who survived several days without symptoms. A very rare instance of aneurism of the Hepatic Artery is this year recorded by Prof. Ross and Osler of McGill University. Dr. W. L. Kelsey, of Wellington, Ct., states that the heart of Tully Harbison, æt. 21, weighed 2lb 12oz. The largest heart on record is, we believe, the one presented by Prof. Alonzo Clark to the College of Physicians and Surgeons, N. Y., weighing 57oz. Dr. Buchan removed from a patient in the Toronto General Hospital in November last a heart weighing 2½lb. Dr. Geo. F. French, of Portland U.S., has invented a very simple support which promises to afford great relief to those suffering from orthopnœa; he calls it a Respiratory Brace.

In connexion with a late death from Ether, in which emphysema of lungs was found, it has been suggested that this condition of lungs may be quite as dangerous in the production of Ether Narcosis as a fatty condition of the heart. In the department of Helminthology Dr. T. Spencer Cobbold, F.R.S., has this year described a new entozoon which he has named *Filaria Bancrofti* in honour of its discoverer, and which he considers to be the sexually mature representative of the microscopic hæmatozoon named by Lewis *Filaria Sanguinis Hominis*. So far he has only been able to discover the female worm. Amongst the books which have appeared we must mention:—"The Student's Guide to the Practice of Medicine," by Charteris; "Recognizant Medicine," by Bholonoth Bose; Vol. XII. of Ziemssen's Cyclopœdia Diseases of Brain; Vol. XV. of Ziemssen's Cyclopœdia Diseases of Kidney; "Transactions of the International Medical Congress of 1876,"; 4th Volume of Reynold's System of Medicine; "Recherches Historiques et Critiques Sur L'Etiologie et la Prophylaxis de la Fievre Typhöide," by N. G. DeMussy; "Traite de la Diphtherie," by A. Sanne; "Recent researches in the Treatment of Phthisis," by Burney Yeo; Lectures on Diseases of the Nervous System by Charcot, translated by Geo. Siegerson for New. Syd. Soc; Lectures on diseases of the Nervous System, by Samuel Wilks; "Essai d'Urologie Clinique," by Robin; "Diseases of the Kidney," by W. Howship Dickinson; "Lancereaux's Atlas of Pathological Anatomy," by Greenfield; "Prognosis in Diseases of the Heart," by Thos. B. Peacock; 3rd edition of Habershon on "Diseases of the Abdomen"; and Geo. Johnson on the "Muscular Arterioles."

SURGERY.

The year's history of Surgery, like that of the sister science of medicine, has been characterized by activity and progress in all its branches. In

the important subject of the treatment of aneurism, all the new improvements of the times have been repeatedly tested and not found wanting. The use of the carbolized catgut ligature, although abandoned by Maunder, one of its earliest and most enthusiastic advocates, has on the whole made more friends than it has lost. It appears to be necessary to draw the noose with a moderate degree of tightness and to tie a third knot in order to prevent slipping, (Mr. Lane). At the Royal Medical and Chirurgical Society in November Mr. Barwell reported a cure of Aneurism of Aorta, Innominate, Subclavian and Carotid by a double distal ligature on the two last named arteries. Catgut was the material employed, antiseptic precautions were taken and an essentially dry diet enjoined. The same surgeon at the same time reported a case of ligature of the left carotid with catgut for aneurism of transverse aorta which was progressing favourably. G. Y. Heath records a successful ligature of 3rd part of left subclavian with antiseptic catgut for aneurism. Mr. Martin Coates records a case of bloodless ligature of femoral for traumatic aneurism by means of Esmarch's bandage, with recovery. Esmarch's bandage alone has been much employed during the year for the cure of aneurism,—especially popliteal. Of these we may mention the case of Mr. Thos. Smith, at St. Bartholomew's, that of Staff Surgeon Reid, R. N., that of Mr. Tyrrell of Dublin, application of bandage for 50 minutes, and that of Thos. Wright of Nottingham for fermoal aneurism. Dr. Alexander Patterson records a case of double popliteal aneurism cured in 21 hours by digital compression. Several other cases of the successful use of digital compression are reported during the year. In New York a new means of compression by means of a conical bag filled with shot and suspended by elastic over the artery has been introduced by Dr. Martin Burke, and several cases favourable to its use reported. Dr. Fleet Spiers' (Brooklyn,) artery constrictor has been tested in England upon the living and dead body, and found entirely satisfactory. At a meeting of the Clinical Society of London, Mr. Henry Morris spoke highly in its favour, and said "In aneurisms of the arch, innominate, carotid, subclavian, and axillary arteries, torsion is impossible, Esmarch's bandage out of the question, compression is neither convenient nor safe, even when it could be borne, carbolized catgut had been proved unreliable, and galvano puncture is fraught with dangers of its own. In such cases as the above, constriction by the "artery constrictor" seemed to possess advantages over all other methods, and promised a fair amount of success." Dr. Phillipson, of Newcastle on Tyne, reports two cases of cure of aneurism of abdominal aorta, one by iodide of potash, the other by compression.

Lithotomy having already attained to a high degreee of perfection, it is of course useless to look for much improvement in the operation from year to year. Dr. Macleod, of Glasgow, has written a valuable paper advocating the use of the rectangular staff in Lithotomy introduced by Dr. Andrew Buchanan in 1848, with a slight modification, for an account of which we must refer our readers to the original paper in the London Lancet for 28th April, 1877. Moreover, as the range of employment of its rival Lithotrity is yearly increasing, the old yieldeth place to the new, and the former is gradually becoming confined to the smaller number of cases. A new means, also, introduced by Dr. Geo. C. Duncan affords foundation for the hope that we may one day see many cases of Vesical calculus disposed of by Litholysis. His apparatus is described in the Edinburgh Medical Journal for May. It consists essentially of a fenestrated catheter containing an india rubber bag which may be protruded through the fenestra at will, and is so arranged with an elliptical spring surrounding the mouth of the bag that this can be opened and closed by means of a wire running through the catheter. The object is, after the catheter has been introduced to protrude the bag in the bladder and catch the stone in it, thus isolating the calculus from the walls of the bladder, when an appropriate solvent can be introduced to act upon it. Dr. E. F. Starr, of Nacoochee, Ga. U.S., reports a successful case of Suprapubic Lithotomy during the year. The year was probably remarkable in the annals of gastrotomy. Dr. Schoenborn (Konigsberg) narrated a case, at the Congress of German Surgeons, in which he in-

troduced a little india rubber bag into the stomach and then inflated it before operating. The case was successful. Dr. Trendelenberg reported another. Mr. Lawson, of the Middlesex Hospital. performed the operation for extra-uterine fœtation ; but the patient was affected with tuberculosis and died. Lannelongue, of Bordeaux, reports a successful case in a man of 59. He agrees with Verneuil in insisting that the stomach should not be incised until after the walls of that viscus have been carefully united to the abdominal walls by numerous points of suture. It has been claimed that Verneuil's case, reported this year, is the first one of recovery after gastrotomy for strictured œsophagus; but in reality Mr. Sydney Jones' case operated on 18:5:75: was a case of recovery, although patient died forty days after from pneumonia or some lung affection; operation first performed by Sedillot in 1849. Mr. Callender reports an unsuccessful gastrotomy for malignant disease of œsophagus. With reference to splenotomy, Billroth thinks the operation simpler than ovariotomy. He this year records a case which would probably have been successful had not a ligature on one of the six vessels he had to tie given way during an attempt at defecation. He prefers hempen ligatures to silk or cat gut. Another case upon which he performed the operation this year did not recover from the loss of blood, the spleen weighed fourteen pounds. H. L. Browne, of the West Bromwich District Hospital reports a case of splenotomy in a man aged twenty, four large arteries were tied, the patient rallied well, but died suddenly five hours afterwards. Spencer Wells also removed the spleen in mistake while operating for ovariotomy. Pean appears to be so far the only fortunate man in this operation.

Colotomy has been several times practised during the year with fair success, and the operation has come to be regarded as thoroughly established, and in fact necessary in every case of permanent occlusion or obstruction of the large intestine from any cause, but especially carcinoma. At a Meeting of the Medical Society, Mr. Rickman J. Godlee directed attention to a fact not generally known, and which it is important to bear in mind in connexion with this operation, *viz.* : that gas may exist in the peritoneal cavity without perforation of the bowel, probably from osmosis. He adduced three instances. Osteotomy is growing in favour, and successful cases are reported from all sides. Whether subcutaneous section of the neck of the thigh bone, &c., can be best performed by Adam's saw or by Maunder and Volkmann's chisels is still a moot question, and each side has numerous advocates. Results with either appear to be equally favourable. Mr. John Chiene secured an excellent result in knock-knee by turning up a flap of periosteum on internal condyle and cutting out with chisel a wedge-shaped piece of bone, then forcibly straightening the leg. It appears that all, or nearly all rachitic deformities of the limbs are now amenable to the surgeons skill. Subperiosteal exsections, too, are becoming common. In March, Mr. Annandale showed to one of the Societies in Edinburgh, a case in which he performed exsection of the knee, and the movements of the joints were subsequently regained. The same surgeon also reports a case in which he successfully employed Esmarch's operation for the relief of permanent closure of the jaws after several other operations had failed. The operation consisted in the removal of $\frac{3}{4}$th of an inch of the lower jaw immediately in front of the cicatrix, and the insertion, as suggested by Rizzoli, of a piece of guttapercha between the ends of the divided bone to prevent reunion and secure the formation of a joint. It has now been successfully performed by Esmarch, Wilms, of Berlin ; Dittl, of Vienna, and Wagner of Konigsberg, and amongst British surgeons by Messrs. Mitchell Henry, Christopher Heath, Bernard and Annandale. What is regarded as an improvement in the operation of tracheotomy by certain French surgeons is the use of the galvano-cautery instead of cold steel ; a good many cases of its employment are reported, and it is claimed, with the effect of avoiding hæmorrhage. Mr. Wagstaffe has introduced and employed a new tracheotomy tube, composed of a single expanding outer tube capable of accommodating inner canulae of three different sizes ; it is so arranged that by a single turn of a screw in the shield, the sides

will come together, thus greatly facilitating introduction. The new india-rubber tracheotomy tubes have been extensively used, but several accidents which have occurred point out a certain danger incident to their employment, that of rotting at the curve and slipping into the bronchus; if used, they should be lubricated with glycerine which soon dissolves in the mucous and does not rot the rubber.

The unusual operation of extirpation of the larnyx has this year been successfully performed by Dr. David Foulis, of Glasgow. The patient was subsequently provided with a Gussenbauer's voice apparatus, like Billroth's case in 1873. This makes the tenth time the operation has been performed, and the fourth success. Extirpation of the kidney was more than once performed in 1877. Dr. C. Langenbuch reports a successful case where the kidney formed a painful tumour on the left side. Mr. Jessop, of the Leeds Infirmary, also removed the left kidney from a child æt. 2¼—the kidney weighed 16 oz. and looked encephaloid. Another case was recorded in France, in which the kidney was drawn into an abscess cavity by contraction, and thence removed. This is the eighteenth case and the tenth recovery on record. Excision of the rectum has been successfully performed during the year. M. Koeberle, of Strasburg, records one where all the functions were regained. Dr. Briddon, of New York, and Dr. Levis, of Philadelphia, each report a successful case. The latter gentleman also reports an unsuccessful one, as does also Dr. D. Hayes Agnew, of the same city. Excision of the tongue has been frequently permormed during the year, and the use of Paquelin's thermo-cautery appears to be of great service in such cases. The great advantages it possesses are facility of employment, cheapness, and the entire absence of pain after its use. It will probably supersede the *rouge fer* and the galvano-cautery altogether. Mr. Annandale records its use in three excisions of entire tongue, with two recoveries, two scirrhous breasts, with one recovery, and three epitheliomata of face recoveries in all. Dr. Ogilvie Will, of Aberdeen, records two successful cases, and Mr. Ashburton Heath, one of excision of entire tongue for epithelioma by the method suggested by Sedillot and Syme, and perfected by Mr. Annandale, which consists in splitting the lip, dividing the symphysis of the lower jaw with a saw, separating the soft parts, pulling forward the tongue, and removing the organ slowly with an ecraseur or Paquelin's thermo-cautery. Some of the patients recovered speech. H. A. Reeves contributed an interesting account of the *immediate* cure of piles by Paquelin's thermo-cautery. Dr. Hennig, of Leipsig, records a case of excision of entire uterus for cancer, with recovery. M. Pean records an extirpation of all that portion of the scapula below the spine, for medulloma, followed by recovery. Mr. Ernest Sheaf extirpated the right submaxillary gland for lympho-sarcoma, and the patient subsequently suffered from persistent salivation.

The discussion at the late Congress of German surgeons on the subject of exsections, was on the whole, favourable to the operation. There, as well as elsewhere, it has come to be recognized that in these operations, partial are less dangerous than total resections, and that the antiseptic system renders the former feasible. Prof. Volkmann, of Halle, has performed exsection of the knee-joint twenty-one times with one death; he describes a new mode of operating. Instead of the H or U incision, he cuts straight across the joint and bisects the patella with a saw. After the removal of the diseased structures, he unites the femur and tibia with catgut ligatures, he also joins the two portions of the patella by catgut. Surgeons have not been slow to avail themselves of the information afforded by recent researches in cerebral localizations as bearing upon the point of application of the trephine, and M. Lucas Championniere records a case of immediate recovery from a brachial monoplegia with aphasia, upon the application of the trephine, although he had no external signs of fracture to guide him. Dr. Proust at the *Lariboisiere* created quite a stir by opening an abscess of the brain with the knife, affording temporary relief to the symptoms. Nerve-stretching in neuralgia and also in tetanus has been a good deal practised and with favourable results. Besides cases reported by Callender and others in England, Billroth and Nussbaum in Germany, Paul Vogt records

a case (ulna), Petersen another (posterior tibisal). Each of these two also reports a case for relief of tetanus, and Kocher one for tetanus, (but this one died). In sciatica, Lister and John Chiene each a case. In tetanus it is always well to give it a trial on the principle, "*Remedium anceps melius quam nullum.*" Speaking of traumatic tetanus, we may as well record the treatment of S. Ezra Read, of Terre Haute, Ind. U.S., as he has a recovery to boast of. During his long experience forty nine cases had fallen under his care, and all died, he hence concluded that tetanus was an incurable disease. His fiftieth case, however, was treated with whiskey to the point of saturation and got well. He now thinks that so long as the good State of Kentucky "continues to manufacture her copper distilled whiskey" he will not again venture to "pronounce tetanus a mortal and incurable disease."

In the reduction of strangulated hernia, M. Phillipe, of St. Maude, recommends the hypodermic injection of morphia instead of the inhalation of chloroform, and cites two cases: Mr. Rivington, of the London Hospital, reports a case of strangulated inguinal hernia operated upon, with formation of fecal fistula and subsequent recovery. Mr. Annandale exhibited, in April, a man who suffered from a large reducible femoral hernia, in whom he made an incision somewhat above and parallel to Poupart's ligament so as to reach the neck of the sac and ligature it. This is one of the few cases of radical cure of this form of hernia. Two cases of diaphragmatic hernia are reported. The insufflation of air in intussusception, volvulus and intestinal obstruction has been several times employed during the year. M. Roger records one, a case of volvulus; M. Ransford, of Liverpool, successfully employed a pair of bellows for inflation in a case of intussusception in a child. Dr. Southey records a case of obstruction which he successfully treated by the genupectoral position, a long rectum tube and two bottles of soda water. The use of massage as a surgical remedy handed down from the Greek gymnasts is being again revived. Among the Germans, Wagner is advocating its employment in contusions, sprains, extravasations of blood, and inflammation of joints. In America, Weir Mitchell and Sayre are the apostles of the system. M. Henriette reports a case of spontaneous elimination of a vesical calculus by the hypogastric region. Dr. Sinclair Coghill reports a case of exophthalmic goitre successfully treated by ergotine hypodermically. The subject of fat embolism is beginning to attract the attention its importance demands. Dr. Arthur Boettcher records a case of sudden death from this cause after a gun-shot wound; and Mr. J. D. Hamilton showed to the Edin. M. C. Soc., three specimens of fatty embolus of pulmonary artery taken from a boy, æt. 14, who died from rupture of the liver which was fatty. Similar cases are recorded by Wagner, Zenker, Czerny and Busch. Doubtless many cases of sudden death after fractures ascribed to shock, are due to this cause. Mr. Annandale records a case of penetration of brain by a knitting needle passing through the orbit. Recovery with loss of sight. M. Oulmont records a case of several spontaneous fractures occurring in a case of locomotor ataxy under Prof. Charcot. Mr. Barker (of Univ. Coll.) records a case of rare dislocation of the hip of "subspinous" or "suscotyloidienne" variety--the seventh recorded case. Staff-Surgeon Head, R.N., records a case of dorsal dislocation of the femur with *eversion* of the foot. Mr. Henry Morris showed at the Royal M. C. Soc., that all dislocations of the hip occur when the leg is in abduction, and that whether the head will be thrown forwards or backwards depends upon the degree of flexion or extension and internal or external rotation at the time. Antiseptics in surgery are daily growing in favour, and Dr. Soulez recommends carbolated camphor as perhaps the best. Naturally the search has been for the simplest forms, and Marion Sims writes to the British *Med. Jour.*, saying that he and his colleagues in America have employed a dressing of simple cotton wool, which filters the air and prevents the access of germs. Now history repeats itself, for not only has M. Desormeaux had a favourable experience of this antiseptic dressing in the Paris Hospitals, but Mathias Mayor of Brussels, true to his principle of "*Simplex sigillum veri*," advocated it so long ago as 1842, and his disciple Burggraeve, of

Ghent, was also a zealous partizan of the "*appareil ouaté.*" The great drawback to the use of Esmarch's elastic bandage in amputation has been the copious capillary hæmorrhage occurring on its removal. Dr. Riedinger has found electricity successful in arresting this. One pole is applied over the nerves supplying the vessels, and the other over the wounded part. He uses the induced current and recommends it before removal of the bandage. Dr. Sayre's visit to London and his demonstrations of the use of his plaster of Paris jacket in spinal curvatures has revolutionized the treatment of these diseases in England. Dr. J. N. Hyde, of Chicago, has described (*Amer. Jour. of Med. Science*, July) an ingenious adaptation of this jacket to splints, in the treatment of hip-joint disease. The second case of scirrhus of the prostate on record occurred this year in Liverpool under Dr. Dickinson; the only other was reported by Mr. Adams in the *Lancet* in 1853. Mr. Harrison Cripps records a successful case of treatment of ozæna by the method of Rouge and Lausanne for removal of the necrotic bones by separating the nose and lip from the bone and turning them up. It has been again suggested during the year that joint grating may be best detected by means of the stethoscope. The treatment of necrosis by injecting the sinuses with sulphuric acid has been under trial. Sawdust (of Memel pine) pads introduced by Surgeon Major Porter have been tried during the year by Mr. Callender, at Bartholomew's. He highly extols them as a dressing where there is purulent discharge. Solutions of bicarbonate of soda have been revived as an application for burns A case of fungus hæmatodes cured by chromic acid is reported.

Dr. Speare, of Rochester, has this year recommended paper splints, made with manilla paper and book-binders starch; but these were used 25 years ago by Prof. Smith, and the late Mr. Hamilton, of Dublin. Mr. Timothy Holmes places on record a case of direct wound of the ureter, an accident hitherto not mentioned in surgical works. C. H. Golding Bird, of Guys, has this year introduced a new treatment of scrofulous lymphatic glands by a painless electrolytic caustic, and narrates twelve cases treated by it. Mr. W. D. Napier has invented a self-retaining catheter with the point of retention in the fossa navicularis, and not the bladder as in others. Two pocket surface insulated thermometers, one by Dr. Mortimer Granville, the other by Dupre. A new rectal speculum, by Dr. T. B. Reed, of Philadelphia; and a new splint for fracture of patella, by W. E. Stevenson, M.R.C.S. Amussat's filiform whalebone conductor to bougies, catheters, &c.. has come into more general use, and during the year Dr. F. N. Otis, of New York, has invented a somewhat similar instrument which he calls a prostatic guide to enable an India rubber catheter to be introduced in difficult cases. Dr. E. L. Keyes, of the same city, has also introduced something similar which he denominates a cable stylet, and which, besides its other use, will likely prove to be a better flexible probe than either Dr. Sayre's or Mr. Charles Steele's. Dr. J. A. Steurer, of New York, has invented a new form of urethral dilator, in which water is made to act as the distending force. An almost identical invention, but intended as a rectal dilator and explorer, simultaneously emanated from Dr. P. S. Wales, Medical Inspector, U. S. Navy. Dr. C. F. Taylor, of New York, has invented a new osteoclast by means of which a bone may be broken at any point of selection. Dr. Richard O. Cowling, of Louisville, Ky., proposes a new method of measuring the length of the limbs. Seeing that the iliac spines and legs are parallel he measures from the centre of the umbilicus around the sole of the foot back again to the point of beginning. Of course the difference found has to be divided by 2 to give the real difference. The third case of luxation of the xiphoid appendix on record is reported by M. Polaillon. A new material for splints has been introduced by Mr. Chiene, of Edinburgh; it consists of layers of calico and shellac, such as used by wholesale hatters. It is stiff when cool, and pliable when heated, and is about twice as cheap as "poroplastic" material. Gurjun balsam has been advantageously employed in gonorrhœa. At the meeting of the medical Association in Chicago, Dr. H. A. Martin, of Boston, gave a most glowing account of the results he had obtained

in the treatment of ulcers of the leg by a special India rubber bandage.

Amongst the surgical literature of the year we must notice, the 7th edition of Erichsen's "Science and Art of Surgery," "The Student's Manual of Venereal Diseases," by Berkeley Hill, and Arthur Cooper (both dualists); E. L. Keyes on the "Tonic Treatment of Syphilis," "Atlas of Skin Diseases," by Tilbury Fox; "The Harveian Lectures on Syphilis," by James Lane; "A practical Treatise on Diseases of the Skin," by L. A. Duhring; "Clinical Records of Diseases and Injuries of the Genito Urinary Organs," by Charles Fleming; "Traite des Maladies de la Prostate," Par. Henri Picard; "Surgery—Past, Present and Future;" and "Excessive Mortality after Surgical operations," by Spencer Wells; Francis Mason on "Harelip and Cleft Palate;" further parts of Jonathan Hutchinson's "Illustrations of Clinical Surgery," and Christopher Heath's "Operative Surgery" now completed. Last, but not least, we would refer to a study of the life of the greatest surgeon of a former day by the greatest surgeon of the present—we mean the "Hunterian Oration," by Sir James Paget.

OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN.

Obstetrics can no longer be regarded as playing the part of Cinderella, as lately depicted, by Dr. Robert Barnes, in comparison with her older and more favoured sisters, medicine and surgery. The day has at length arrived in which this branch of the healing art has assumed its rightful place as a most conspicuous and important part of the Æsculapian edifice. Its study and practice fully engage the highest faculties and most assiduous attention of some of the ablest minds in the profession, and the assistance it alone affords in unravelling many of the mysteries of nature as observed in other departments of medical science renders an intimate acquaintance with it indispensable for the accurate comprehension of the whole. In midwifery and the diseases of women and children, the past year has not been uneventful. The never absent subject of post-partum hæmorrhage has necessarily attracted much attention. The value of ergot, in restraining this, has been much questioned, yet the general opinion, as expressed during the year, would appear to be that, if a reliable preparation of the fluid extract, or a freshly prepared infusion be employed, the drug is still worthy of our confidence. Dr. Gordon, of Hannibal, Mo., has found the tincture of Hydrastis Canadensis in twenty to thirty minim doses, very useful in such cases. Dr. Runge has this year stated that he has found intra-uterine injections of hot water (117°—124° Fahr.) to succeed where ergot, ice, and external manipulation had failed. He also cites Windelband, Jakoch and Landau's experience in its favour, but he does not appear to have been aware that it has been long practised in America by Fordyce Barker, Emmet and others. The majority of the records of the year are, perhaps, in favour of the tincture of iodine or the perchloride of iron. In the Practitioner for March, Dr. Griffiths reports favorably upon the use of ether spray. Several cases of rupture of the uterus have beeen recorded with unusually favorable results. Dr. Hart, of Amsterdam, relates one case in which the fœtus was delivered by gastrotomy and the life of the mother saved. Mr. Richmond Leigh, of the Liverpool Lying-in-Hospital, records the occurrence of a case of rupture without symptoms; labour was terminated naturally and the placenta came away easily. Collapse was absent. She lived six days, and apparently died from hæmorrhage. The rent was found at the junction of the lower $\frac{1}{3}$ with the uppper $\frac{2}{3}$ of the uterus. Dr. Rose, of West Winfield, N.Y., reports the case of an Irishwoman who has undergone four successive ruptures of uterus, and is still living. Gastrotomy in obstetric practice has not been without its successes during the year. Dr. Buckell, of Winchester, records a case where the life of the fœtus was saved by Cæsarian section performed between twenty and thirty minutes after the death of the mother. Dr. Kœberle, of Nancy, performed gastrotomy for an irreducible retroversion of uterus producing intestinal obstruction; the uterus was restored to position, one of its ligaments fastened in the wound and recovery ensued. As mentioned in the surgical section, Mr. Lawson performed gastrotomy in a case of

extra uterine fœtation, but owing to the existence of tuberculosis, the patient did not recover. From the discussion at the American Gynœcological Society this year it appears that dilatation of the cervix must be credited with a real potency in the arrest of uterine hæmorrhage, whether the explanation that it relieves congestion above the internal os by removing the constriction at that point be received or not. The subject of placenta praevia and its treatment by the induction of premature labour has been fully discussed during the year. Dr. Thomas, of New York, reported an additional successful case in support of this, his mode of treatment, making in all, in his experience, eleven cases with two deaths (neither directly due to the placenta prævia.) These statistics make the future of these cases as bright and promising as the past has been gloomy and foreboding. That the condition of pregnancy is not a necessary bar to the performance of major operations the statistics this year brought forward at a meeting of the Obstetrical Society of London, by Mr. Spencer Wells, amply testify. Out of nine cases of ovariotomy eight mothers recovered, seven children were born naturally, one fœtus was removed at time of operation, and one was expelled twenty-five days after. The induction of premature labour in these cases cannot compare with this result. Dr. Fritz Benicke also reports five cases of successful removal of malignant disease of the cervix uteri during pregnancy.

Prof. Tarnier, of Paris, has this year described a new form of midwifery forceps which he has invented, and for which he claims certain advantages not possessed by any in common use. These are that (1) it admits of traction, being made in the axis of that portion of the pelvic cavity which the fœtal head at the moment occupies. (2) It possesses an indicator capable of pointing out the direction in which the traction should be made. (3) It permits the head to rotate as it descends. There are also certain disadvantages it possesses, and these, together with its price, will prevent its becoming popular. Dr. Marcy, of Cape May, places on record a case in which the placenta was retained for over eighteen months. At the Havre Congress, for the advancement of science, M. Massart, of Honfleur, communicated a remarkable case of retroversion of the gravid uterus which was reduced by a method borrowed from the old Norman bonesetters; a "pot de chambre" was applied to the belly as a cupping glass so as to diminish the pressure of the intestinal loops on the displaced organ. In the treatment of retroversio uteri much success has attended the assumption several times during the day of the genu-pectoral position as suggested by Dr. Arthur W. Edis. The journals of the year record numerous cases. As narrated above gastrotomy was successfully resorted to for the relief of one case of retroversion. M. Gallard and others record the further successful employment of the curette in the treatment of intra-uterine vegetations. Dr. Guichard relates a case of cure of epithelioma of the cervix by parenchymatous injections of a solution of chloride of zinc (1 in 5.) Dr. Galabin, of Guys, has, several times during the year, employed Esmarch's elastic constrictor in amputations of the hypertrophied cervix uteri. Paquelin's thermo cautery also has been much employed in obstetric surgery, by Dr. Heywood Smith and others. Dr. John G. Blake, of Boston, records a case of inversion of the uterus which he saw a month or six weeks after its occurrence. It was reduced in about twenty-five minutes by manual pressure. Dr. J. C. Reeve, of Dayton, Ohio, records a case of acute complete inversion of uterus which he also succeeded in reducing in the same manner. Inversion of the uterus has been seen but once at the Rotunda hospital since its foundation in 1745 out of 190,800 deliveries. Dr. LeDibarder relates a case (Obst. Jl., G. B., June) of chronic partial inversio uteri cured by pregnancy. There occurred in the Queen's Hospital, Birmingham, this year, a curious case with double uterus and fibroid tumours, two vaginæ and only one kidney. A case of ruptured vagina from coitus entered the Montreal General Hospital; the woman's age was sixty. Dr. Craig, of Hudson, reports a case of menstruation at four years of age, and another at seventy-three. A case of loosening of the pelvic symphysis persisting over two years after parturition is recorded by

Dr. Basham, of the Westminster Hospital; it improved upon rest, and the use of a strong pelvic binder. Dr. Johannsen, of St. Petersburg relates the case of a young married woman in whom he found a new cause of vaginismus, viz.: two small fistulæ in the urethra; the larger one was split and the smaller canterized and the spasm disappeared. The conclusions of M. Gubler's examinations of glycosuria in the puerperal state are that glycosuria is not a normal phenomenon of lactation, and that it appears on the suspension or premature suppression of suckling. As a contribution to the diagnosis of Ovarian disease Prof. Guido Baccelli, of Rome, points out that percussion of the ilium may elicit information. Prof. Olshausen remarked during the year that his and Volkmann's experience of Marion Sims' method of drainage in ovariotomy through Douglas' cul-de-sac into vagina had at first been favourable, but he believed the recent use of Lister's antiseptic method would entirely supersede it. Prof. Hildebrandt, on the other hand, recommends ligaturing the pedicle with stout silk, dropping it into abdominal cavity and passing a small drainage tube through Douglas space. Professor Schatz thinks drainage unnecessary except there be much bleeding or serous extravasation, and advocates antiseptic treatment. He uses the carbolic spray. Prof. Hegar prefers immediate closure of the abdomen in the great majority of cases; thinks that when drainage is necessary one opening is not sufficient; uses silk for all ligatures and avoids the carbolic spray for fear of poisoning. The value of the ice cap introduced by Mr. Knowsley Thornton in cases of headache and fever after ovariotomy, has been amply attested this year by the cases of that surgeon, Mr. Spencer Wells and others. Mr. Wells at a meeting of the Royal M. C. Society during the year announced the result of his last 300 cases of ovariotomy. He remarked that in the majority of cases drainage was unnecessary and should not be used. With regard to the use of antiseptics he was not altogether convinced of their value; had not often used the cautery in the treatment of the pedicle, but thought the clamp or ligature was to be preferred. Dr. Thomas Keith, of Edinburgh, records successful ovariotomy in a case of burst ovarian cyst; most distressing vomiting was present, bile and albumen in the urine; temp. 103°.5, pulse 122, very feeble; the temp. a day or two previous to the operation had reached 106°. He has now operated fourteen times in cases of suppurating or putrid ovarian cysts with twelve recoveries. In last 107 operations has had only ten deaths. Mr. Thomas Browne, of Chelsea Hospital for Women, records a case of ovariotomy in which the bowel was wounded; it was sewn up with a continuous catgut ligature and a good recovery ensued. Dr. Robert Barnes reports an exactly similar case Billroth, of Vienna, lately operated on his 100th case. Mr. Thornton has this year related three cases illustrating some of the various results of rotation of ovarian tumours, and he suggests as an explanation of this rotation that it may be brought about by the peristaltic action of the intestines; he also thinks that tapping by rendering the cyst flaccid may assist in producing it. Dr. Stilling, of Cassel, is a thorough convert to the Lister method in ovariotomy, and he thinks the pedicle should be tied in several thin cylindrical bundles with carbolized catgut. He also closes the abdominal wall with this material. Mr. W. Makeig Jones records a case of congenital hernia of both ovaries. At the New York Obstetrical Society great difference of opinion was manifested as to whether narcotics and other drugs administered to the mother affected the fœtus in utero; but at the meeting of the British Medical Association, Dr. McClintock, of Dublin, and others strongly insisted upon the great value of fœtal therapeutics. In his hands a combination of tincture of perchloride of iron and chlorate of potash had been singularly successful in saving the life of the fœtus and prolonging gestation to full term. At the same meeting the stomach of an infant five weeks old was exhibited affected with cancer. M. Redou has called attention to the fact that diabetes is much more common in children than has been supposed; it is however less fatal and more amenable to treatment. The therapeusis is the same as for the adult. The peculiar and shocking mortality resulting from the aggregation of lying-in women has again been

amply attested on all sides during the year. The only text-book on midwifery proper which has appeared during the year is that of Otto Spiegelberg, the young professor of Breslau, but which, as an eminent reviewer has said, "far surpasses any work hitherto published on Midwifery." Amongst diseases of women and children we notice a "Handbook of Uterine Therapeutics," by E. J. Tilt; "Diseases of Women," by Lloyd Roberts; "Practical Gynæcology" by Heywood Smith; Second Edition of Barnes' "Medical and Surgical Diseases of Women"; Second Edition of Day on "Diseases of Children;" Third Edition of "A Practical Manual of Diseases of Children," by Edward Ellis; Sixth Edition of Meigs and Pepper on "Diseases of Children"; and a "Manual Pratique des Maladies de l'Enfance," par A. D'Espine and C. Picot.

OPHTHALMOLOGY AND OTOLOGY.

We shall only glance at the subject of Ophthalmology and Otology in so far as the general practitioner may be therein concerned. Under the rather startling caption of "Shut Your Mouth and Save your Life" Dr. J. G. Cassells contributed to the Glasgow M. C. Society a very interesting and useful communication demonstrating the evil consequences which so frequently ensue to the general health, and more especially to the auditory apparatus, from the habit of breathing through the mouth. He believes left-sided deafness to be more frequent on account of the comparative smallness of the left nostril. Zarefal has asserted during the year that the dangers of fluid entering the Eustachian tube while practising nasal irrigation, which has proved so beneficial in catarrh, may be entirely avoided by the surgeon standing behind the patient and making firm pressure with two fingers on the soft palate, pushing it up against the tubal orificies. This pressure is not painful if it be firm and persistent. A new dilating aural speculum, on the principle of Mr. Wagstaffe's tracheotomy tube, has been introduced. Dr. Priestly Smith has had constructed a new, simple, and very useful eye-douche, by Messrs. Arnold and Son, on the principle of their simple enema syringe. M. Teillais, of Nantes, reports a remarkable case of diabetic cataract in a young woman, aged 23, in whom both eyes were operated upon, with an interval of ten days, with very satisfactory results. Chemical examination of the crystalline lens demonstrated the presence of sugar. Dr. Zimmerman, of this city, met with an enchondroma of the eye-ball which had been removed by Dr. Rosebrugh. The year's history of this department has been by no means barren in literature. We notice the appearance of a report of a most admirable lecture delivered before the Medical Society of London by Dr. Hughlings Jackson, on "Ophthalmology in its Relations to General Medicine"; an "Aural Atlas," by K. McNaughton Jones, of Cork; "The Ear: its Anatomy, Physiology, and Diseases," by C. A. Burnett, of Philadelphia; "How to use the Ophthalmoscope," by Edgar A. Brown; the Third Edition of "Diseases and Injuries of the Eye," by George Lawson; and two very excellent treatises which we suppose we may include here, Spencer Watson on "Diseases of the Nose and its Accessory Cavities"; and a "Manual of Diseases of the Throat and Nose," by Morell MacKenzie.

MEDICAL JURISPRUDENCE AND HYGIENE.

Medical Jurisprudence and Hygiene have not been standing still, but we must confine our remarks to an enumeration of the works which have appeared upon these subjects. In the former must be mentioned the admirable lectures of the Ogstons on Medical Jurisprudence at Aberdeen; "A Handy Book of Forensic Medicine and Toxicology," by Bathurst Woodman, and C. Meymott Tidy; "Civil Malpractice—a Treatise on Surgical Jurisprudence," by Milo A. McClelland; "The Student's Handbook of Forensic Medicine and Medical Police," by H. Aubrey Husband; and W. W. Ireland on "Idiocy and Imbecility." In the latter we observe a Fifth Edition of Parkes' "Manual of Practical Hygiene," edited by Prof. F. de Chaumont; "Domestic Hygiene," by George Wilson; and "Dust to Dust—or Sanitary Burial," by S. Phillips Day. The accident to the miners at Pont-y-Pridd, whereby nine men were imprisoned in a chamber of compressed air for nine days, without any food

whatever, but with water, shows how long life may be maintained under such circumstances. M. Tarchini Bonfanti records two remarkable cases of retarded putrofaction and prolonged rigor-mortis lasting four and a-half days; these are important as indicating the care which should be observed in judging of the time of death from these signs. Dr. K. N. MacDonald reports a case of infanticide by asphyxia (*Edin. Med. Jnl.*, July) in which the four cavities of the heart were found empty. H. Schinaltz regards the presence of air in the Eustachian tube and tympanum as evidence of live birth. M. L. Cazeneuve has introduced a new test for blood which consists in observing the action of the hydro-sulphite of soda upon the hæmatosine of the blood. Place in a vessel suited for spectroscopic investigation an alkaline solution of blood, and you will find the characteristic band of haematosine; put in one or two drops of hydrosulphite of soda, and the dichroic tint is immediately replaced by a crimson one like a solution of oxyhæmoglobine. Cases of carbolic acid poisoning continue to be reported—seventy are now on record. Castor oil seeds are exceedingly poisonous, one seed has killed a child. Poisoning by santonin has been reported; the only treatment Binz has found of any service is chloral-hydrate, chloroform, and ether, with artificial respiration. Prof. Petersen, of Kiel, records a case of acute poisoning by salicylate of sodium. Dr. Attilio Lelli has found coffee to be an efficient antidote to strychnia. Prof. Valentin has found that 0.00037 of a gramme ($\frac{1}{0.0\,0\,0\,37}$ grains) of the poison of the viper aspera of Linnæus (the aspis echidna of Risse) was capable, when inserted beneath the skin of a frog, of producing symptoms of poisoning, and death in thirteen days. Knott reports (*Phil. Med. and Surg. Rep.*) two cases of rattlesnake bite cured by intravenous injection of carbonate of ammonia. Among the changes in the occupancy of the chairs in the Universities of Great Britain, which are of interest to the world at large, we may enumerate resignation of the chair of Materia Medica in the University of Edinburgh by its venerable occupant Sir. Robert Christison, and the installation in it of his old pupil Dr. T. R. Fraser. Prof. Lister leaves Edina for King's College, London, and Mr. Annandale succeeds him. Dr. Matthews Duncan too seeks the Metropolis of the World, and supersedes Dr. Greenhalgh at St. Bartholomew's. Prof. Dickie has retired from the chair of Botany in Aberdeen. Dr. Ogilvie Forbes resigned the chair of physiology in Aberdeen, and Dr. William Stirling has been appointed to the vacancy. Prof. Allen Thomson has resigned the chair of anatomy in Glasgow so long filled by him, and Dr. Cleland, of Galway, succeeds him.

We have a few words to add upon topics of general application. The accumulation of evidence of another year goes to confirm the view that anæsthesia, the greatest boon as yet vouchsafed to suffering humanity, is not an unmixed blessing; and that temporary oblivisccence of excessive pain can only be purchased at the price of a risk in every case, a risk which in the few is a forfeit of life. Several deaths from chloroform have been recorded in the past twelve months, several (but not so many) from the effects of ether; at the Manchester meeting of the British Medical Association, Mr. Spencer Wells strongly advocated the claims of the Bichloride of Methylene, and asserted that, if mixed with a sufficient quantity of air, its use as an anæsthetic would be perfectly devoid of danger. Nevertheless, the year's testimony presents two fatal cases, one in September at the Radcliffe Infirmary, Oxford, and the other in the East Suffolk Hospital. One more case of death from nitrous oxide is also placed on record. During the year a new anæsthetic agent has been introduced under the name of hydrobromic ether: its properties appear to be intermediate between chloroform, bromoform, and ether. It is curious that almost simultaneously and from antipodal quarters should arise two new claimants to the honour of discovering anæsthesia, the one by ether, the other by chloroform. Dr. C. W. Long, of Athens, Ga., U. S., this year puts forward his claim to the title of discoverer of the anæsthetic properties of ether, and he finds himself supported by the weighty authority of Dr. J. Marion Sims.

It appears, too, after all, that Sir James Simpson was not the first (in November, 1847)

to make use of chloroform as an anæsthetic agent, for Sir Robert Christison bears witness that in the summer of 1847, four or five months before, Mr. Lawrence and Holmes Cootes produced surgical anæsthesia by chloric ether (spirits of chloroform) at the suggestion of a pupil of Lawrence's—M. C. Furnell, now M.D., F R.C.S., Surgeon Major in H. M.'s Indian service, and Principal of the Madras Medical College—who discovered its properties accidentally upon himself; but they all appear to have been put on a wrong scent by the fact of the bottles being labelled "chloric ether." Although no one would wish to detract from Prof. Simpson's fame in this connexion, yet "Bart's" men will be glad to learn that Furnell is "one of them."

Dr. Benjamin Howard, of New York, has been giving demonstrations of the superiority of his "direct method" of artificial respiration over the plans of Sylvester and Marshall Hall, both at King's College Hospital, London, and before the British Medical Association at Manchester. It will doubtless supersede the older methods. Cremation, as the most sanitary method of disposal of the dead is gaining ground, though slowly; doubtless, in the day to come, for we are only "in the morning of the times," it will prevail. On the 9th of October, at Milan, Prof. Gorini made a new trial of the crematory apparatus invented by himself. The body of a man, 62 years of age, weighing forty-two chilogrammes, was introduced at 1 p.m., and at 3 p.m. only 5 per cent. of its original weight remained. Not the slightest fetor or disagreeable sensation was experienced by the bystanders. Prof. Tyndall and Dr. Charlton Bastian continued their discussion upon the *quaestio vexata* of spontaneous generation, and neither party seemed disposed to acknowledge itself as worsted; but when the challenge came across the channel from Pasteur to Dr. Bastian to repeat his experiments with him before a commission from the *Académie des Sciences* and establish his position, the world eagerly looked forward to a settlement of the matter; but our French cousins, it appears, treated the learned Englishman with but scant courtesy and consideration when he went to Paris, and the commission was dissolved. The subject, therefore, remains still *sub judice*. The International Medical Congress met this year at Geneva, on the 9th of September, under the Presidency of Dr. Carl Vogt; anything of special interest which occurred there we have signalized elsewhere. The meeting of the British Medical Association took place at Manchester and was an almost unparallelled success, some 1,200 members being in attendance. A very large and successful gathering of the American Medical Association was held this year in Chicago. The Canada Medical Association met in Montreal on the 12th of September, under the Presidency of Dr. Hingston; the meeting was one of the best in its history, and a volume of its transactions is this year, for the first time, published. A congress of German surgeons met in Berlin, on the 4th of April, under the Presidency of Prof. Von Langenbeck. One of the remarkable features of this meeting was the advocacy by Dr. Busch, of Bonn, of alkaline washes—solutions of soda—in the treatment of cancer of the face. Prof. Lucke brought before the meeting the subject of the percussion of bone in the diagnosis of its diseases. The memory of Chelius, Fergusson, Stromeyer and Simon, who had died during the year, was impressively honoured by the assemblage rising *en masse* at the mention of their names.

The Turco-Russian war, which has been waging throughout the year, will teach the world a lesson in sanitary matters. The contrast between the admirable sanitary arrangements in connection with the troops of the Czar, and the utter disregard of all such matters on the part of the Moslem with its inevitable consequences preach a more potent sermon than "a thousand homilies." The crying evil of the abuse of medical charities has been earnestly engaging the attention, not only of the profession in the old country, but also of all true philanthropists. The outcome of the agitation is the birth of Provident dispensaries in all sections of the country. This is an example which we in Canada especially should not be slow to follow, and all interested in the subject would do well to read the very important pamphlet of Mr. Sampson Gamgee, of Birmingham. The Homœopathic schism in Lon-

don, and the overtures of Dr. Wyld (Vice-Pres.) to gain re-admittance to the general profession, ought not to be overlooked as "signs of the times."

Upon the great question of Temperance during the year the profession, as a body, has given forth no "uncertain sound." The advocacy of the establishment of "coffee" and "milk taverns" for the people has been a rational step in the right direction, but we must go further; we believe, with Dr. Dyce Duckworth, that it is absolutely necessary to contend against "the intricate social habits of the present day, the sadly increased facilities for drinking which spread around us, and the ignorance and merely nominal Christian lives which are led by many of our countrymen. These are the roots of the upas tree, and to these must the axe be laid." The past year witnessed the demise of an old, and true, and tried friend to medical science—the "British and Foreign Medico-Chirurgical Review." To this journal all men looked for fair and unbiassed judgment, and truthful as well as learned criticism of whatever works appeared. That after thirty-eight years of continuous publication the publishers should be obliged to draw its labours to a close for want of *pecuniary* support does not speak well for the appreciation of scientific effort when the pocket is called upon for a response. But the publishers add another reason; they say that in these times of telegraphy and telephony, when the transport of news and opinion is "ocior fulminis alis," people will not wait three months, even for scientific information, and that consequently the day of Quarterly Reviews has gone by for ever. Our penultimate section belongs to the illustrious dead. It is no pleasant part of the duty of retrospection to contemplate the losses the profession has sustained. The year's obituary list contains, amongst many others less known, such names as these: Albrecht Erlenmeyer, the German alienist; John Gairdner, of Edinburgh (æt. 87); Sir. Wm. Fergusson (æt. 68), Dr. Tettes (æt. 80), Prof. Henri Ferdinand Dolbeau, the eminent Paris surgeon, author of the use of alcohol in surgical dressings, and of the "lithotrite perineale;" Alexander Eugene McKay, the statistician of the Royal Navy; Dr. Basham, of the Westminster Hospital; Daniel Donovan, of Cork, of Irish famine fame; Peter Brotherston, of Alloa; Dr. Robert Lee, an Edinburgh Graduate of 1814; Guiseppe de Notaris, the eminent Italian Botamist (æt. 72); John Adams (72), Peter Marshall (68), Dr. Wm. Morris (æt. 85), James Baker (æt. 26), the promising medical orator of the future; Wm. Coulson (75), Ed. Coupland (83), C. W. M. S. Graham, of Dalkeith (80); Henry Wilson, the celebrated Dublin occulist (40); John Cronyn (51), John Richard Carmichael, who fell a victim to typhus at Chefoo, while attending the Chinese poor; Henri Conneau (æt. 74), body physician to Nap. III.; Evasio Adami, of Turin, first body physician to Victor Emmanuel; Volkmann, Isambert, Ricord, Caventou, Bourier, Chas. Mayo, Prof. C. VonHeine, the surgeon of Prague; Prof. A. R. Crosby, of New York; S. Bathurst Woodman, Wm. E. H. Post, Nathan R. Smith, of Baltimore, aged 80; Prof. Chas. A. Budd, of New York; Gurdon Buck, Herman Althof, Prof. Joseph Carson, of Philadelphia; Joseph Freer, of Chicago; Paul F. Eve, of Nashville; Wunderlich, of Leipsig; Dr. Henry Lawson, Editor of the monthly Microscopical Journal of G. B.; and Samuel Warren, author of a "Diary of a late physician," and "10,000 a year;" more immediately connected with ourselves, Dr. Hamilton, of Dundas, and Dr. Dewar, of Port Hope. Several French physicians died during the year, from diphtheria, contracted in attendance upon patients during the Paris epidemic, and Dr. Cline, of the Montreal General Hospital, perished from a similar cause. Of these, some had overpassed the limit of man's three score years and ten, others had not yet reached it; some cut off in the heyday of life and usefulness, others just entering on their career, but all died in harness, verifying Vaughan's description, as far as the physician is concerned, at all events, "Man is the shuttle to whose winding quest and passage through these looms, God ordered motion but ordained no rest;" but if, as we believe, as the sequel of "life well spent, and work well done," "there remaineth a rest," then, on behalf of those whose names are set down above, it will be superfluous to add "Requiescant in pace!"

Last, but, we trust, not least in the estimation of our readers, comes the subject on which we intend to say a parting word—ourselves. During the two years of our existence it has been our single aim and earnest endeavour to reproduce in our columns, for the benefit of Canadian practitioners, the best part of the medical periodical literature of the world. Although, looking with a fond and favourable eye upon every home communication, and giving it publicity if equal to foreign articles, we have invariably sacrificed all personal and national vanity to the true interests of our patrons, notwithstanding the demand from many of original communications. Our object has never been to parade Canadian practice to the world, but rather to make the advance and practice of the world subservient to the interests of the Canadian practitioner. That our endeavour has not been devoid of either appreciation or success an ever-growing subscription list will amply testify.

Not discouraged by the issues of the past and with "large faith in Time." we enter on another year animated by the same spirit and desire of usefulness in our day and generation, and in full assurance that "exitus acta probabat."

Ovarian Dyspepsia. — Dr. Fothergill describes a form of dyspepsia combined with leucorrhœa, and commonly too with menorrhagia, which depends on morbid conditions of one or both ovaries. This form of dyspepsia is very intractable unless its causal relationships are remembered. Blisters over the ovary, with bromide of potassium and sulphate of magnesia internally, are more effective than bismuth and hydrocyanic acid.

Removal of Moles on the Face.—Remove by two slightly curved incisions; then unite the cut edges with a wire serrefine, and cover over the incision and teeth of the serrefine with scraped lint soaked in collodion. Remove the serrefine on the third day and drop collodion into the holes it has left on the now dried lint. Peel off the lint on the fifth or sixth day. Usually no mark is left, or only the faintest possible line of a cicatrix.

Selections: Medicine.

THE INTERNAL COMPLICATIONS OF ACUTE ERYSIPELAS.

BY J. M. DA COSTA, M.D.

The first of the internal complications which I shall describe is the *kidney disorder*. It is very common, indeed so common that I dislike to call it a complication; it seems rather an essential part of the disease. The affection shows itself chiefly by the presence of albumen in the urine; and the occurrence of albuminuria in erysipelas is a matter that has been noticed by several recent observers. But what has not been noticed is, that albuminuria is the rule, not a mere accident in erysipelas; that it happens with quite as great or even greater frequency as in diphtheria or in scarlet fever. I have been studying this subject for a number of years, and now know that I am correct in deducing from many observations the rule that albuminuria is present in every case of marked erysipelas; even in light cases it will exist as a transitory phenomenon, perhaps for a day. As regards the time at which the albumen appears in the urine, it is not generally found the first few days—though Case XVII. proves that decided renal trouble may be present early—but as the disease has reached its height, or as desquamation is beginning. The albuminuria passes away as a rule with the acute disorder, at least I have never known a permanent renal difficulty result from the derangement of the kidney that occasions it, though I have known it to be present long after convalescence. During those temperature rises above described, following the first outbreak, it may reappear in the urine in small quantity, but usually does not, while in the course of a regular relapse it is much more common, particularly if the relapse be of any duration. Yet, generally speaking, it is not so marked nor so constant in the relapse as in the first outbreak.

The amount of albumen present in the scanty urine is not large, and in light cases very slight. When decided, we are apt to find also slightly granular renal epithelium, and epithelial or fibrinous casts and an excess of urates. Blood casts, like those in the urine of acute

Bright's disease or of scarlet fever, I have most rarely encountered; but free blood corpuscles and leucocytes are not infrequent.

I believe the truth to be that, while albuminuria does occasionally happen in traumatic erysipelas about the head and face, it is less constant and marked than in the idiopathic variety.

The question just raised requires further elucidation; and I venture to call the attention of surgeons to the matter, as needing determination not only in traumatic erysipelas of the face and neck, but in all other kinds of erysipelas. To recur, however, to the albuminuria of idiopathic erysipelas. What is its cause? The fact just stated, of the occasional presence of albuminuria in traumatic erysipelas; the circumstance that after extensive burns it may be noticed; the well-known close physiological connection between the skin and the kidneys, might prompt the explanation that the renal trouble is a secondary result of a local skin disorder. I cannot think it is so. Considering its constant, I might say almost invariable, occurrence; that it makes its appearance at a fixed time in the affection; that while a purely local damage, such as a burn, may cause albumen in the urine, it yet requires to produce it a very extensive surface injury—very different from the comparatively slight extent of skin involved in idiopathic erysipelas—I am led to the conclusion that the renal disturbance forms part of the general morbid process, which, perhaps on account of the close sympathy between skin and kidneys, attacks these by preference next to the skin. Another explanation might be, that, like the albuminuria of low fevers and occasionally of rheumatism, it is the result of the blood changes, and of the altered circulation and nutrition which take place in the kidneys. This may be true; yet the constancy of the phenomenon, the regularity of its course, and the relation in time it evidently bears to certain changes in the skin, make the former explanation seem the more correct. But I cannot see any inconsistency in, to a certain extent, adopting both of these views. They both presume general causes at work rather than an indirect result of mere local alteration.

Next to the kidney affection in frequency, and presenting far graver issues as to recovery, is the *cerebral disturbance*. This manifests itself in restlessness, disturbed sleep, headache, giddiness, but especially in delirium. This symptom is far more common than is usually supposed. In truth, in marked cases it is, I think, the rule to meet at the height of the disease with a certain amount of nocturnal delirium. Generally the mental wandering is mild; but it may be the reverse; and some epidemics are characterized by the occurrence of early and wild delirium. In instances in which the cerebral disorder, especially the delirium, is very decided, it has been supposed to be due to an extension of the erysipelatous inflammation to the brain. Let us see what its cause really is.

An obvious suggestion, other than the one just alluded to, and one that after the investigation into the condition of the urine we have just been making seems very likely, is, that the cerebral symptoms may be due to uræmia. I do not think that they are. Stupor, coma, or convulsions, rather than mental wandering, are the usual features of uræmic poisoning; and though I believe that the want of full action in the clogged kidneys will keep the blood impure and aggravate the cerebral disturbance, it does not seem sufficient to cause it. Then I have met with instances in which the kidney affection was decided, and even renal casts were found, without delirum or any other sign of brain distress being present.

Is the brain disturbance due to the high temperature; is it merely another sign of the intensity and gravity of the fever process? Now, here it must be stated that as a rule the cases that present high temperature have more or less prominent brain symptoms, and the reverse is true. Yet it is because they are bad cases, and suffering from intensity of the poison and of the local affection, that they are apt to have alike the cerebral disorder and the high temperature, and not because one depends on the other. For I have known on the one hand a high temperature to exist without delirium or other signs of brain annoyance, and on the other hand marked delirium to be present without high temperature.

The brain symptoms of erysipelas have been, as already stated, generally attributed to an ex-

tension of the inflammation to the brain. And this view, not long since the only one, and ably advocated by such writers as Sir Thomas Watson and Trousseau, as at least of frequent occurrence, is still very prevalent, as may be judged, for instance, by the statement in Niemeyer's well-known text-book: "A far more serious but less common complication is the extension of the inflammation from the scalp to the meninges." Now, not wishing to be biased by my own observations, which had given me a very opposite result, and to which I shall presently refer, and desiring to ascertain on what this commonly-received dogma, repeated by author after author, was based, I have searched in numerous publications in the hope of coming across some well attested case of this erysipelatous inflammation of the brain or its membranes. But all in vain have long lists of hospital reports, of journals, and of monographs been examined. I find, indeed, cases in which local trouble about the bones of the head has been attended both by meningeal thickening and by erysipelatous inflammation of the scalp and face; I have found thrombosis of the sinuses alluded to rather than described; I find instances where extravasations of blood have taken place near the cranial bones, and there has been very considerable hyperæmia of the membranes; but I have sought in vain for such a post-mortem record of meningitis or cerebritis, or even of thrombosis, as would fairly satisfy the requirements of modern pathology.

The treatment I pursue in most cases of erysipelas is, as may be readily gathered by the records in this paper, a local treatment with some mild demulcent, very often with infusion of slippery elm, while, internally, the tincture of iron with or without quinia is freely used, and in some instances the latter alone is resorted to. Now is it necessary to stop this treatment in cases with cerebral symptoms? It is not. I have had the best results by continuing it. I certainly advise quinia to be used. But I also generally resort to stimulants, give an occasional saline purge, and, remembering the state of the kidneys, see that the urinary secretion is freely kept up. Where the sleeplessness is very marked, opium or chloral may be employed.

Before dismissing the subject of the cerebral symptoms in erysipelas, let me mention a few points of purely clinical interest. One is, that the delirium may really be the outbreak of mania-a-potu, and appear at any time in the malady.

Another feature I may mention about the delirium is, that it, in fact that all the cerebral symptoms, may be passing away, and the erysipelas break out in fresh directions, and lead by its local extension to fatal issue.

There are other internal affections we meet with in erysipelas which may be alluded to. Some are the direct result of the extension of the morbid process to the mucous membrane; in others the trouble originates within, or leads to remote complications. The *throat* is often attacked by a spreading of the inflammation; and it is common to find the palate and fauces, and even the tonsils, red and swollen, and occasioning difficulty in swallowing. Pharyngitis is very usual, and will be generally seen if looked for. At times the erysipelatous inflammation begins in the throat and works its way outwards; or starts in an old nasal catarrh, passes to the throat, and thence to the face. I have seen several instances of both of these forms of erysipelas. Further, it may happen that the throat is red and shining, and fluid collects in little bags, and that there is great difficulty in swallowing. The trouble is chiefly in the palate, half-arches, and posterior wall of the pharynx; the glands of the neck are but slightly or not at all swollen. The whole appearance is decidedly that of erysipelas, and the affection has been described as erysipelas of the fauces. Its tendency is to spread downwards, not to show itself on the face. Of course, in default of erysipelas appearing there, the diagnosis remains doubtful. I have seen at different times in consultation three cases of this throat trouble. I regret that the urine was not examined. From my present knowledge of its being so commonly albuminous in erysipelas, I suspect that it will be found so in cases of the kind, and that thus their nature may be ascertained.

In its progress downwards, erysipelas, starting on the face, may spread to the larynx, producing laryngitis and œdema of the glottis, and may pass on into the *lungs*. Several instances of the kind are recorded in this paper: (Cases

IV., XV.; in Case XIII. there was a marked pulmonary complication, although the evidence that it was due to extension is not clear.) Of true pneumonia thus arising I have never seen an example, though such cases have been described. The lesion I have met with is a bronchitis of the finer tubes with considerable pulmonary congestion. One instance of pleurisy, complicated with pericarditis (Case XVII.), has come under my observation.

Diarrhœa is an occasional symptom, and lesions of the solitary glands and of Peyer's patches, enteritis, especially duodenitis, intestinal hæmorrhages and ulcers in the duodenum, have been recorded as *enteric complications* of idiopathic erysipelas. *Enlargement of the spleen* is stated by Friederich to be an almost constant accompaniment of facial erysipelas, and often to reach such a degree that the organ projects from under the rib. *Peritonitis* as an attendant upon erysipelas I met with in one instance. It occurred in a young man just recovering from facial erysipelas, and the tenderness, abdominal pain and distension were such as to leave no doubt in my mind of the nature of the trouble. The patient recovered; but recovered slowly.

That *pyæmia* and *metastatic abscesses* follow erysipelas is a common belief. I have not myself met with any cases, probably because my experience is derived from medical cases. And as regards less clearly defined conditions of blood poisoning, very likely many of the obscure symptoms of depression and ill health and general disorder that we observe after attacks in some persons may be due to impure blood. On this point, however, we cannot speculate with any certainty. We do not know enough of the condition of the blood in erysipelas. Virchow states that the fibrin is increased; Walter Moxon and Goodhart confirm the opinion that there is an excess of white cells in the blood of erysipelas. "In one case as many as sixty leucocytes in the field were found, the average being twenty-five;" Bristowe writes "that in the early stages of the disease the blood contains an excess of fibrin and of white corpuscles, but subsequently tends to assume the characters commonly observed in the later stages of febrile disorders." Yet a good many of these observations were evidently made on the blood in surgical erysipelas, complicated, as this often is, with the history of all kinds of injuries and accidents, and we need further knowledge before we can attempt to draw fixed conclusions as to the blood and the result of its changes in idiopathic erysipelas.

One of the most important of the internal complications of erysipelas is found in the state of the *heart*. It consists in a granular degeneration, like that we observe in idiopathic fevers. The organ is flabby; the impulse is not well-marked; the first sound becomes defective, and is sometimes replaced by a short murmur; the second sound is distinct. In a number of the cases reported in this paper this state of the heart is mentioned, and the autopsy in several showed what the condition of the organ was.

Now the condition of the heart referred to is one that easily becomes complicated with a short mitral murmur due to functional disturbance of the valve, and which is the more readily produced on account of the altered condition of the blood. It is not difficult to understand how this state of things may be mistaken for endocarditis. Still I do not deny the occurrence of endocarditis and kindred alterations; I merely deny the frequency, and explain differently the signs by which the disease is supposed to be indicated. It cannot, I think, be gainsaid in the face of the statement of Sevestre that at the autopsy the lesions of endocarditis have, at times, been detected, attended with swelling of the valves and with degeneration of the myocardium; or, that he has occasionally known the lesion persist and be accompanied by grave disorder of the circulation. Nor can the possibility of its existence be questioned when Jaccoud tells us that he has seen an instance in which a man, dying on the ninth day of an idiopathic erysipelas, was found to have myocarditis, with a slight inflammation of the mitral valve. Pericarditis he also mentions as happening.—*Condensed from The American Jour. Med. Sciences.*

Inflation of the Urethra either by injecting a solution of carbonate of soda, and followed by one of tartaric acid, or else by means of a Politzer's bag, has been successfully used as an aid to catheterism in urethral stricture.

Surgery.

ON SURGICAL USES OF THE STRONG ELASTIC BANDAGE OTHER THAN HÆMOSTATIC.

BY HENRY A. MARTIN, M.D., BV'T LT. COL. AND LATE SURGEON U. S. VOLS.

For over twenty-five years I have made use of a strong bandage of India rubber, for the treatment and cure of all ulcers of the lower extremity of a non-specific character, coming at all within the category of curable, and as a most efficient aid to treatment and palliation in those of a specific character and those incapable of perfect cure by any method of treatment; and I may here say that a very large proportion of ulcers of the lower extremities practically incurable by other methods are capable of easy and permanent cure by this.*

* I use such a bandage in the treatment palliative and curative of many other diseases and injuries, principally of the lower extremities; but of these I will, at the present time, give only a partial list, reserving a detailed acccount of its application to such cases for a future paper. The present writing will refer exclusively to the treatment of ulcers of the lower extremity. The principal cases, other than these, in which I have found such bandages eminently useful are, (and I mention them in the order of their importance, and the perfect applicability of this method to their treatment); (1.) Acute and chronic synovitis and consequent effusion in the joints, particularly of the knee, ankle, and elbow. (2.) Subluxations of those joints to which the bandage can be applied, both in their acute and chronic stages. (3.) Morbid effusion in the bursa mucosa, especially, after evacuation by aspiration, of the bursa developed over the patellæ, and known as "housemaid's-knee," and by other names. (4.) Œdema and anasarca, whether due to local or general causes, and occurring in either the lower or upper extremity, but chiefly, of course, the former. (5.) As an admirable palliative, and even in some instances, to a certain degree, means of curing varicose veins of the lower extremity, occurring either with or without ulcers. (6.) As a most efficient adjunct to treatment of erysipelas of either the legs or arms, whether traumatic or idiopathic, and, in very many cases, capable, without other means, of entirely curing, and, as it were, *extinguishing* that so called "*ignis* sancti Antonii." (7.) As a very valuable adjunct to the treatment of many cutaneous diseases, particularly when affecting the lower extremity, and as, without any other means whatever, local or general, absolutely and completely curative of many of these affections and their consequences. (8.) As a very useful surgical dressing after dislocation of any joint to which it, can be applied, but particularly those of the knee elbow and ankle. (9.) As an extremely useful surgical dressing for some cases of that form of lesion entitled "green-stick-fracture," in which a gradual, continually exercised, gentle pressure accomplishes that perfect "reduction" which cannot always be accomplished at once even by painful and unduly violent manipulation. Also in cases of deformity of bones from improper co-aptation of fracture, where the "callus" is too firm to admit of immediate bending, this sort of bandage, properly applied, has been found quite capable, by the constant, steady pressure which it exercises, of correcting deformity in fractured bones, even so long after injury as to be generally supposed capable of such correction by no means save that of re-fracture. (10.) As a most useful appliance eminently palliative, and sometimes even to a great degree rapidly and completely curative of injury of the ligamentous and other tissues of joints, resulting from contusion or other injury, or from relaxation of ligaments from disease. (11.) As a most efficient palliative of, and often decided means of remedying chronic and acute inflammation of and about the joints or other parts of a limb; in phlebitis; as a preventive when abscess is threatened, or, in such cases, when too far advanced for prevention, as a means to hasten forward the process of suppuration. This enumeration of cases in which the strong elastic bandage has been found, *in actual practice*, very decidedly useful, although somewhat extended is, by no means, exhaustive. When the intelligent practitioner becomes familiar with, and reflects upon, the phenomena observed after the bandage has been applied the effect of continuous, gentle, equable pressure, of perfect exclusion from air and light, of the constant moisture and equal warmth of the part involved in the bandage, of the constant support afforded to distended and weakened vessels, the relief of congestions by the mechanical expulsion of blood from the overloaded veins and capillaries, he will have little difficulty in perceiving the value of this method of treatment in the cases I have mentioned, and many others. I shall, at some future time, write a paper or two based on my personal experience in the use of the bandage for other cases besides those of ulcers of the lower extremity. At present I only wish to intimate what some of these are.

The bandage which I use in the treatment of ulcers of the leg, is made of what is technically called "pure rubber," i.e., the best "Para" rubber, combined with the smallest possible mixture of sulphur, and subjected to the minimum of heat necessary to "cure" the gum and ensure it from the destructive changes which rapidly take place in bandages made of pure uncured caoutchouc. The bandage is ten and

a half (10½) feet in length ; three (3) inches wide, and of the thickness of no. twenty-one (21) of Stub's wire gauge. In about two inches of one end a piece of strong linen cloth is inserted. To this is strongly sewed a stout double tape of eighteen (18) inches in length. It is important that the edges of the bandages should be perfectly even, and this can only be accomplished by cutting them by machinery. The bandages I now use, are, with the single exception of attaching the tapes, prepared at the factory in which the sheet rubber is manufactured. In my first experiments, I attempted to make the bandages by cutting them, with strong, sharp shears, from the rubber sheet ; but in this way it was impossible to produce a bandage that would wear for any great length of time. If there is the slightest notch in the edge, at that point, sooner or later, generally very soon, the bandage will tear, and become useless, while the machine-cut, perfectly even-edged bandage will bear continued and indefinitely repeated traction without any danger of such an accident. It is really astonishing how long such a bandage will wear. Many of my patients are wearing those, which have been in constant daily use for two, three, and even four years ; and I have cured several successive poor patients with bandages which still remain serviceable. The length and width stated are those I have found suited to the vast majority of cases. In a few instances of extraordinary size of a limb, a width of three and a half, or even four inches, and two or three feet of additional length may be desirable. In cases where the leg is very slender, the length I mention will be more than is needed, but the superfluous bandage may be wound round the leg under the knee, or, of course, cut off to suit the exact requirements of the case.

I need not relate how I gradually came to the conclusion that such a bandage as I have described, *without any other means or appliance whatever*, is all that is necessary for the perfect and *permanent* cure of all curable non-specific ulcers of the leg. Such is the fact, and I have no hesitation whatever in asserting that all former other methods of treating such ulcers may and should be abandoned entirely, no matter how illustrious their authors. The method I advocate is so easily tested, a case of ulcer of the leg carefully observed will demonstrate its advantages clearly and perfectly, and as people with uncured ulcers of the leg abound everywhere, I cannot help hoping that, although I am unknown in every way as an authority, the method will be fairly tried, and win by its intrinsic and evident merit, a permanent place in surgical practice.

The bandage is to be applied by taking one turn just above the ankle, then one over the instep, round the sole of the foot, then round the ankle and, spirally, up over the leg, to the knee, at which point what remains unapplied should be wound round the limb, and the tapes firmly tied. Each turn should overlap that before it from ½ to ¾ of an inch. No skill whatever is requisite, as the bandage is simply carried round and round, without any of the nice reduplication which is necessary for the proper and useful application of the ordinary bandage. The best time to apply it is the first thing in the morning, before the veins of the leg have become distended from the impeded column of blood. The very best way is for the patient to apply it in bed, before assuming the upright position. If, in these circumstances, the bandage is applied with just enough snugness not to slip down, it will, at once, on the patient standing up, become exactly of the right degree of closeness of application. This is all that need be said in regard to the application of the bandage. Thus applied, it will remain unmoved the whole day, no matter how active and continual the exercise or labour of the patient. A theoretical objection to be met is that that portion of the foot below the bandage must become œdematous. Such certainly would be the effect of an ordinary bandage, applied with sufficient tightness to be of any use, but the fact is, that no œdema follows the proper use of the rubber bandage. Indeed, in some cases of ulcer of the leg, a certain degree of œdema of the foot is found, due to the weakened and distended veins, and consequent impediment to the circulation. This œdema is rapidly removed by the use of the strong elastic bandage. These facts are illustrative of the reasons why its application alone is so entirely sufficient for the best possible treatment of the varicose ulcer. That sort

of ulcer and the œdema accompanying it, are due to the too great quantity of blood in the limb. The bandage expels the superfluous blood, and while it supports the weakened walls of the distended veins, does not stop, but really facilitates the circulation through them. The pressure exercised by the bandage is a very efficient means towards the absorption of interstitial deposits, serous or fibrinous, effused among the tissues of ulcerated legs.

The patient wears the bandage all day. At bed-time it is to be removed. When this is done, its inner surface and the skin, which it had covered, will be found bathed in profuse sweat; this is to be wiped from the limb with a dry cloth. A bit or bits of thin, soft, old linen, moistened with castor or sweet oil, is to be laid on the ulcerated spots, and kept in place by a few turns of cotton roller bandage. This is the treatment, with recumbent position all night, and the bandage and the erect position all day. The bandage should be wiped with a wet sponge, and hung up to dry, or, of course, it may be wiped dry at once, and rolled up, with the tapes inside, for use on the following morning. This is the whole treatment I have employed for the permanent and solid cure of many hundreds of ulcerated legs, during the past twenty-five years. Now and then, a peculiarly diseased condition of the skin has led me to recommend a daily or less frequent washing with Packer's tar soap*, and occasionally a carbolized, or other solution where there was an intensely itching condition of the surface. As I am writing for physicians, I need not enter into details of treatment of exceptional cases. What is required by the peculiar complications of certain cases will suggest itself to the intelligent practitioner. For ulcer of the leg, *uncomplicated* by other disease of the skin, the bandage alone is all that is needed.

* I have found "tar soap," which contains a large amount of tar, properly saponified, of very great value in certain diseased conditions of the skin, and rectal and vaginal mucous membranes. A great deal, however, of so-called tar soap is so merely in name, and intended for toilet use. I formerly used the Hamburg Thev Seife, which answers very well, but is absurdly expensive. For two or three years, I have made use exclusively of Packer's tar soap, an American product, far superior to even that from Hamburg, and sold at a very reasonable price.

During the first two or even three weeks that the bandage is used, a more or less numerous crop of papules will appear on the skin to which it is applied. These run, rapidly, into suppuration, discharge their contents and disappear. Generally they are small, but occasionally larger, and now and then of the character of small boils. Whatever their size or number, the best possible treatment for their resolution is by the bandage. This is practically the best possible poultice. In a wonderfully short time these little pustules run their course in the warm moist atmosphere under the bandage. Each of these pimples or pustules represents an obstructed follicle or duct. After they have ceased to appear, the skin becomes and remains entirely unobstructed, no matter how long the bandage is worn. A few patients cannot, or *think* they cannot bear the rubber next the skin. In many hundreds of cases, I have met but three or four in whom there was a want of perfect aud easy tolerance. In these exceptional cases I was obliged to wind the limb with a linen bandage, over which I applied the rubber. Only one of these exceptional cases was of ulcer of the leg; the others were cases in which the bandage was applied for disease or result of injury of the knee joint. I have said that the strong bandage *alone* is all that is needed for the successful treatment of all non-specific ulcers of the lower extremity. I repeat it with the utmost confidence based on a very large and long experience. One and the chief reason that I have so long foreborne to communicate to the profession a method which I consider so valuable was that I wished to accumulate such a number and variety of cases in which it had been successfully employed as would leave no room for doubt, and, being quite without the vast facilities afforded by hospital practice, such accumulation was a gradual process. The form of ulcer which yields most readily; with a rapidity which is sometimes really wonderful, is that most common of all, the varicose ulcer. The reasons for this are obvious. That sort of ulcer is caused and maintained by mal-nutrition of the skin from the engorged, impeded circulation, which is at once relieved by the bandage. In those cases caused by a languor and imperfection of circula-

tion in the legs, from deficiency in quality or quantity of blood, or feebleness of the heart's action, the bandage accomplishes a cure by the warmth and moisture it secures, favouring the circulation in the cutaneous capillaries and inducing a *removal* of blood to the surface. In these cases, familiar to all surgeons for their obstinate resistance to treatment and the imperfection and unreliability of their cicatrization, the ulcers called by Hippocrates, and the classic surgeons "Chironian"—round or roundish, with perpendicular sides, as if punched out of the whole thickness of the much-thickened skin, with hard, white, scathing, often almost cartilaginous edges, yield to the bandage and to that alone, and with far more perfect and stable results than by other methods of treatment, but they are cured much more slowly than any other variety of non-specific ulcer. Before anything like *reliable* cicatrization of these ulcers can occur, the hard edges must be entirely got rid of. The constant pressure of the strong elastic bandage is an efficient agent in promoting the absorption of the impediment to cure; but it is a slow process. In such cases I recommend that the patient should wear the bandage night as well as day, while in the very large class of ulcers caused and maintained by a varicose condition of the veins, I direct the bandage to be worn only during the day, as before stated.

In, perhaps, the worst *curable* case I ever saw of this inveterate sort of ulcer, in an old, feeble, ill-nurtured patient who had been, off and on, under treatment for nearly nine years, whose ulcer had been nominally "cured" again and again, and in each instance, almost immediately on resuming labour, the cicatrix had broken down, I used the bandage alone as a test case. Of course I could have much expedited the cure by removing the gristly border of the ulcer by caustic, or the knife, but I depended on the bandage only, and in four months, during which the patient continued to labour without any intermission, his ulcer was solidly and well healed, and has now, for nearly five years, remained so. I may say here that not only with this method is the patient *allowed* to continue his ordinary avocations, however laborious, but is much better able to work while wearing the bandage than he would be without it. This is particularly to be noticed in all varicose conditions of the leg. I have had many cases in which it was only by wearing such a bandage that a patient could do his daily work. I shall refer to this point again in a future paper, in which I hope to demonstrate the extreme value of these bandages as a palliative in cases of varicose veins of the leg, *uncomplicated* with ulcer. I am aware how hastily and roughly this paper has been thrown together, but I believe it indicates pretty clearly my method of treating ulcers by the strong elastic bandages, and my perfect confidence in that method, and that is its entire end and object.

Postscript.—Since my return from Chicago, and as a result of my remarks at the meeting there, I received very numererous applications for bandages, and for the address of a dealer from whom they could be obtained. To meet the requirements of the profession I have made arrangements with Messrs. T. Metcalf & Co., 39 Tremont St., and Messrs. Leach & Greene, 1 Hamilton Place, Boston, who will, in future, have always on hand an ample supply of bandages for the leg, made under my direction and inspected by myself.—*Chicago Med. and Surg. Journal.*

Minute Structural Relations of the Red Blood Corpuscles.—Prof. Bœttcher, of Dorpat, communicates the fact that a nucleus can be demonstrated in the red blood cells of mammals by treating them with a solution of corrosive sublimate in alcohol. Treated in this way the blood corpuscles can be arranged in several groups. 1st. Those which appear homogeneous and shining. 2nd. Those with a homogenous shining cortical layer and a granular mass in the interior, which last is more darkly stained by carmine and eosine. These are by far the most numerous. 3rd. Blood corpuscles in which three parts can be distinguished; (*a*) a bright homogeneous cortical layer; (*b*) the granular protoplasm; (*c*) a clear nucleus inclosed in the latter and containing a bright nucleolus. In the case of a man who died from drinking corrosive sublimate, the corpuscles presented the character, recounted above.

Original Communications.

POST-PARTUM HŒMORRHAGE.

BY J. H. BURNS, M.B., TORONTO.

The following cases occurred in my practice recently :—

No. 1. Mrs. N——, *primipara*. The labour concluded satisfactorily in about four hours. An hour afterwards the uterus was well contracted, and I had taken my departure; but when a short distance away was hurriedly summoned to return.

On examination found the womb quite relaxed, much blood having already been lost and still flowing profusely. Without trying any more simple remedy, great weakness being apparent in the woman, I injected, through the vaginal nozzle of an enema syringe, a solution containing equal parts of whiskey and water. The result being immediate and continued contraction, after which the patient progressed without an untoward symptom.

No. 2. Mrs. M——, aged about 42, seventh confinement. Previous history such as to excite apprehension, she having suffered from alarming hæmorrhage after her two last confinements, and in the seventh month of this pregnancy having had hæmaturia. Added to these circumstances was a general account of such symptoms as might bring her under the class of people known as "bleeders." The labour, in this case, was concluded in about three hours, and to all appearances the dreaded flooding was not to take place.

The result, however, proved otherwise, for before leaving the house, I was called from another room to the patient's bedside by the nurse saying, "Mrs. M. is dying." Upon raising the bed coverings I was surprised at the amount of hæmorrhage which had taken place, and was still continuing.

The patient was pale, cold and pulseless, unable to articulate, and apparently lifeless. No time was lost in using the syringe, and brandy and water in equal parts, with the gratifying result of bringing on immediate and permanent contraction. For four or five hours the prospect of restoring animation seemed very gloomy; but after frequent doses of brandy and milk, warmth and strength returned, and convalescence went on most favorably.

I am led to publish these two cases because it does not appear, from the writings in current literature, that the means above resorted to are well known, at least, they do not seem to be generally practised.

For the above method, I am indebted to my friend Dr. Jukes, of St. Catharines, who published an essay on the subject, about ten year ago, giving cases as evidence of the utility and safety of the procedure.

That it possesses elements of safety over injection of perchloride of iron, there can be no doubt, from the fact that since iron acts as an instantaneous coagulator, some clots may be taken into circulation and produce embolism, or they may remain in utero, and give rise to septicæmia.

The *modus operandi* of spirit (it makes no difference if it be whisky, brandy, gin, or pure alcohol) appears to be that of producing, perhaps by irritation, immediate contraction, and in my experience the contraction so produced has been very forcible and permanent.

Dr. Brisbane, in a late number of the London *Lancet*, has advocated carrying a small bottle of perchloride of iron to obstetric cases with the same faithfulness that he would a preparation of ergot, and in post-partum hæmorrhage has successfully employed this agent, topically applied with a piece of sponge or lint. This would appear to me *prima facie* evidence that the iron injection is not required on account of its power to produce coagulation; since the small quantity that a bit of sponge could contain would not seem sufficient to constringe a bleeding sinus as large as those in a non-contracted uterus, but rather that its effect is that of an irritant productive of contraction. If such is the fact, is not the danger less when contraction, without blood coagulation, is produced as with the spirit injection?

The hypodermic injection of ergotine would appear to possess very valuable qualities in this form of hæmorrhage, and no doubt will be commonly used, it being spoken of as an excellent measure; but the intra uterine injection of spirit in this alarming condition, I believe, deserves a high place on account of safety, rapidity, both in execution, and result cleanliness and convenience.

Translations.

From *Le Progres Médical.*

Gastrostomy.

At a meeting of the *Académie de Medecine* in April, M. Lannelongue (of Bordeaux) read a communication on a case of gastrostomy. A man 59 years of age, without previous history, and of good health up to time of seizure, was suddenly attacked with difficulty of deglutition, which grew progressively worse to such an extent that at the time of his entrance into the hospital Saint Andre, six months after the onset of the trouble, a few spoonsful of milk could scarcely be swallowed. There was discovered about the middle of the thoracic portion of the œsophagus a very resistant and impassable obstacle (stricture.) Emaciation was extreme, but there was no cachectic tint; all the other organs were healthy.

There remained but one last resource, *ultima ratio,* to succour the patient from death by starvation, and that was gastrostomy. It was practised with all the operative precautions pointed out by Prof. Verneuil, in his interesting communication to the *Académie de Medecine,* on the 31st of October, 1876. The consequences of the operation were very simple; there was neither pain nor inflammatory action. Alimentation was being regularly performed through the fistula, which, however, allowed a notable quantity of liquid to escape, when thoracic symptoms supervened, and carried off the patient on the 26th day from the operation. At the autopsy it was found that the primary lesion of the œsophagus (epithelioma) had produced perforation of a bronchus from which the symptoms of asphyxia resulted and produced the fatal termination. But the stomach was solidly adherent to the abdominal wall, the gastric fistula was well formed, and the success of the operation was complete.

The author finished with the following conclusions: 1st. Gastrostomy is a rational operation, founded upon the history of gastric wounds and fistula, created experimentally in animals, or accidentally produced in man.

2nd. It is at all times indicated when aphagia renders death from inanition imminent.

3rd. The operative procedures ought to be exactly conformed to the rules laid down by Prof. Verneuil, and of which one of the principal consists in only opening the stomach after having solidly fixed it to the abdominal wall by the very careful application of numerous points of suture, so as to avoid all immediate or subsequent effusion into the peritoneal cavity. Some modifications of detail might here be inserted; they would consist:

4th. In not passing lower, in the incision through the integuments, than the level of the lower border of the eighth left costal cartilage, in order to strike more directly upon the anterior wall of the stomach, which is always shrunken and drawn up towards the diaphragm, in consequence of the long abstinence, in patients suitable for gastrostomy.

5th. In opening the anterior wall in the vicinity of the lesser curvature, so that liquids secreted or injected, finding at a depressed point a sufficient space in which to accumulate, may not flow out.

6th. In not applying upon the edges of the gastric orifice either hæmostatic forceps or retaining threads for the bougie which is left in situ. Such means favour fissures and mortification, from which subsequent enlargement of the fistula results, and facilitates the escape of liquids.

From *Revista Clinica di Bologna.*

Eliotropina.

The eliotropium europæum is an indigenous plant, and grows in sterile places and amongst stones. This plant contains a rather sour and corrosive juice which was once used for corns and warts, and also as a detersive in carcinomatons ulcers and old wounds. It has been lauded as an anthelmintic, emmenagogue, diuretic and purgative, but fell into complete disuse. Nevertheless, Ballardier, a French chemist, a short time since discovered in it an alkaloid, possessing a febrifuge action very similar to that of quinine. He called it *eliotropina.* It is easily soluble in acidulated water, and also in simple water, and presents astonishingly all the reaction of the alkaloids. It has a bitterness equal to that of quinine, and a very pronounced febrifuge effect.

From *Rivista Clinica di Bologna.*

TIMOLO.

Belongs to the carbolic series and possesses an energetic antiseptic action, according to Husemann, superior to that of carbolic acid. Upon skin and mucous membrane it has a slightly caustic effect, and internally it acts especially upon the nervous system, producing a fall of temperature, moderating respiration, and reducing the pulse. If the dose be toxic it produces death by adynamia, but without coma or anæsthesia. It then produces special anatomical lesions, which are: Pulmonary congestion, renal hyperæmia, hepatic steatosis, albuminuria and epithelial casts in the urine, &c. For its antiseptic action Lewin prefers it to any other antiputrescent. In cases in which the dilated stomach becomes the seat of abnormal fermentation, Timolo administered at such time controls the vomiting and causes the viscus to contract. Lewin believes that Timolo will also prove useful in diphtheria, and in parasitic diseases in general. As an astringent it is exceedingly useful in hypersecretions from mucous membranes. For internal use it is convenient to employ at first a solution of $\frac{1}{2}$ per 100, afterwards increased to 1 per 100, of which two or three teaspoonfuls may be administered per day. With 120 grammes (℥iij. ℥vi) of this solution, 20 grammes (℥v.) of sweet almonds and 25 grammes (℥vi. gr. xv) of syrup, we can form an emulsion, of which 5 to 6 teaspoonfuls may be daily given. Lastly, as an application to wounds, the solution of 1 in 100 will suffice, but we may also employ 2–4 grammes (℥ss. ℥i) of Timolo in 100 grammes ℥iij. ℥i) of alcohol mixed with a litre of distilled water.

From *L'Union Medicale.*

Among the general conclusions which complete the volume of "Memoires de Physiologie," by M. Paul Bert, the author promulgates the view that at the beginning of life upon our globe, oxygen was more abundant than it now is. It is then probable that the first beings were bacteria, which can exist in an excess of oxygen. The time will come when the only beings which will exist will be those which, in the absence of free oxygen, can borrow this gas from bodies which have been organized, and these are the vibriones. Thus, life commenced upon our globe with bacteria, and will end with vibriones. "These last, said M. Dumas, we shall not see;" but we see them now. They are they which shall see us no more. At a late session of the *Academie de Sciences*, M. Cailletet announced that he had succeeded in liquefying one of the four gases which hitherto had resisted all tentative efforts to obtain this result. There remain still unreduced only hydrogen, oxygen, and marsh gas; the fourth, nitrous deutoxide, has been liquefied under a pressure of 104 atmospheres, at a temperature of less than 11 degrees. This gas, at a temperature of 3 degrees below zero, had resisted a pressure of 270 atmospheres. The difference of temperature is then, in this case, much more important than the pressure, since a difference of 8 degrees is more efficacious than a difference of 166 atmospheres. We may venture to hope that the other gases which we have named will not be long before being likewise reduced to the liquid state.

ON THE EXTIRPATION OF THE GRAVID UTERUS AS A SUBSTITUTE FOR CÆSAREAN SECTION.

It occurred to Dr. Rein on account of the great success of laparotomy in fibroid tumours of the uterus to try the same operation as a substitute for Cæsarean section. He extirpated the uterus in thirteen cases of cats and rabbits which were with young. At first the operations were unsuccessful on account of their not being properly performed. The walls of the abdomen were opened in the middle line, and the neck of the womb ligatured in various ways. The uterus was then drawn out of the wound, opened and emptied of its contents, then separated from the neck above the ligature. The neck of the womb was attached to the wall of the abdomen in the same way as a pedicle. The fœtal animals were extracted also, and some of the rabbits survived.

From these experiments, Dr. Rein concluded that the operation might be performed in a similar way on the human subject. Extirpation of the womb has the advantage over Cæsarean section that the bleeding can be easily controlled, and that no wounded organ is

allowed to remain in the abdomen. Moreover, it prevents pregnancy at any future time in a crippled woman.

Lately the operation has been twice performed by Prof. Spath. In the first the mother and child survived, but the second was unsuccessful, as also was a third performed by Prof. Bran, except that the child was saved.

From *Lyon Medical.*

Usefulness of the hot bath in Metrorrhagia.

The first conception of this method of treating metrorrhagia belongs to a Dijon professor, Dr. Salgues, and its popularization is due to M. Tarnier. The baths should be of a temperature of 33° to 35° centigrade (91.°4 to 95° Fahr.) and of from twenty to thirty minutes' duration. They should be repeated every day until the hæmorrhage no longer recurs. Their action is moreover very rapid, and oftentimes one or two baths will suffice to put an end to fluxes which, up to that time, had resisted all known hæmostatics. M. Tarnier, and after him, Prof. Bailly, have employed this means, especially in the metrorrhagias which occur as sequels of accouchement. M. Bailly does not resort to them during the first few days after labour; but beginning on the 10th day he thinks their employment rational, and he adduces, in support of his opinions, two very interesting observations. He attributes the efficacy of the hot bath under such circumstances to the fluxion which the application of the moist heat produces on the cutaneous surface; this fluxion having as a necessary consequence the relief of the congestion, and the rendering anæmic, the internal organs.—*Bull. Gen. de Therap.*

Ovariotomy, by Karl v. Rokitansky, Jun.

Karl v. Rokitansky, Jun., of Vienna, takes the following precautions:—Before the operation the room is thoroughly aired for at least two days. The patients take several warm baths to excite the cutaneous functions, and the bowels are regulated. Some hours before the operation the rectum is emptied by an injection. Relative to the instruments and utensils, the most scrupulous care is exercised as to cleanliness. The instruments are dipped in carbolized oil 5% before use. The sponges, which are used solely for these operations, are kept in a covered jar filled with 5% carbolic solution from one ovariotomy to another. A quarter of an hour before anæsthesia, which is always done with pure chloroform, a subcutaneous injection of atropiæ sulph. 0.005, morph. muriat. 0.07 is given. Before the operation the abdomen is washed with carbolized lotion 2%. The wound being closed with sutures is dressed with lint soaked in 2% carbolized oil, carbolized tow and a flannel bandage. The dressing is changed on the second to the fifth day. The first two weeks the patient has a room to herself; and the first five days has a special nurse. The three or four first days liquid nourishment—soup, milk, rice or barley water,—forms the diet. After the fourth day roast meat; after the ninth or tenth day gradually the usual diet is resumed. —(*Wiener Med. Presse.*)

Experiments on the Production of Sugar in the Liver.

by claude bernard.

A stream of water is caused to pass through the vena porta until the sugar and the glycose are completely washed out of the liver. The ferment, which is still present in large quantity, is obtained by cutting the liver into small pieces and pouring on it five times its weight of glycerine, macerating it for two or three hours, and filtering. The glycerine will contain the ferment from which it can be separated by alcohol. Claude Bernard was convinced by experiment that this ferment had the same properties as the diastase of barley.

From *Lyon Medical.*

A very Simple Means of Carrying Nitrate of Silver into the Uterine Cavity.

Prof. Pajot says:—I take a piece of laminaria about two millimetres in diameter, dip it into a very concentrated solution of gumarabic, roll it in a very fine powder of melted nitrate of silver and allow it to dry. I thus obtain an unbreakable pencil of the ordinary size, which may be carried as deeply as there can be any need, and in all directions. It is mounted on the ordinary caustic holder.

Book Notices.

Virus of Venereal Sores. Its unity or duality. By Freeman J. Bumstead, M.D.

Clinical Lectures, Surgery—Lecture I. By J. H. Pooley, M.D., Columbus, Ohio.

Ninety-Fifth Annual Catalogue of the Medical School, Boston, of Harvard University. 1877-78.

Physicians' Handy Ledger: A Companion to Walsh's Physician's Combined Call-Book and Tablet. Published by Ralph Walsh, M.D., 326, C St. Northwest, Washington, U.S.

This is a very convenient ledger, small, complete, simple and cheap. It saves much time in booking, and answers every purpose of a ledger. Price $2 50.

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An excellent visiting list, containing poisons and their antidotes, formulæ and doses of medicines for hypodermic injection, inhalations, suppositories and pessaries, disinfectants, metrical weights, examination of urine, directions for *post mortem* examination, medico-legal examination, treatment of asphyxia from drowning, list of incompatibles, doses of important and new remedies, &c. All in a compact space convenient for the pocket. Price $1 50.

Transactions of the International Medical Congress of Philadelphia, 1876, edited by John Ashurst, jun., A.M., M.D., Philadelphia: Printed for the Congress, 1877. 8vo. pp. 1153. Price $6.

The benefit that results from cosmopolitan gatherings of the leading men of medical science is amply shown in the published record of the proceedings of the International Medical Congress that met in Philadelphia in 1876. Although but little that is really new to the well read man may be contained in the scientific part of this work, still the reviewer can, with sincerity, congratulate the Centennial medical commission on the outcome of their project, as here exemplified by the efforts of the Publication Committee and their editor, Dr. Ashurst, jun. The large amount of work done by the Congress made it impossible to report the interesting discussions on the papers, but in many cases, we have an abstract of these discussions, and where these are wanting the conclusions of the sections on the subject of the papers are given. As an interesting addition to our medical literature, and as a memorial of a century of American medicine, these transactions will be prized.

A Compend of Diagnosis in Pathological Anatomy with directions for making post-mortem examinations. By Dr. Johannes Orth, First Assistant in Anatomy at the Pathological Institute, Berlin. Translated by F. C. Shattack, M.D., and G. K. Sabine, M.D. Revised by R. H. Fitz, M.D., Cambridge: *The Riverside Press*, 1877. New York: Hurd and Houghton.

This work, written by the First Assistant of the eminent pathologists, Virchow and Rindfleisch, representing, as it does, their teaching, is a most valuable addition to our literature. A thorough and practical knowledge of pathology is now recognized to be of vital importance to the physician who aspires to be anything more than an empiric; and it is with a view to direct and assist the student in acquiring such knowledge that the above work has been written and translated. Full directions are given for making *post-mortem* examinations, and for recognizing pathological changes in the fresh organs. The gross and microscopical appearances of the changes met with in the organs and tissues of the body are fully described, and the method of examining each part and the order of examination carefully pointed out. The book supplies *a want long felt*, for though good works on pathological anatomy are numerous, we know of none in our language, with the exception of that of Dr. Delafield, that deals with the practical study of the subject in the way this one does. It will be read, or rather studied, by those desirous of perfecting themselves in morbid anatomy, with pleasure and profit. We recommend it to all, and especially to students who now have, *or ought to have* in the *post-mortem* rooms of our hospitals, some facilities for pursuing so important a subject. The translation has been carefully made, and the publisher has done his work well.

Transactions of the Tenth Annual Meeting of the Canada Medical Association held at Montreal, September 12th and 13th, 1877: Lovell Printing & Publishing Co., Montreal.

We welcome the first volume of these transactions with pleasure, and trust, year by year, to see the work so well begun continue without a break, satisfied that great good will accrue to the Association and its members by the publication of papers read at the annual gatherings. Not the least important advantage that will follow will be the improvement that we look for, and know that we shall find in the character of the papers prepared by the members; for we regard the main object of the Association as one of mutual improvement, and without a full recognition of this opportunity of improving oneself and others, there would be no medical associations in existence. The present volume contains the report of the proceedings, the President's address, four reports of committees appointed at the previous meeting, and fifteen papers on various subjects.

We hope that our readers will send for the volume, as it will amply repay perusal, and apart from the literary value of the papers which should be sufficient to command the pecuniary success of the undertaking, our thanks are due the publication Committee for the way in which they have completed their work, and nothing, we are sure, will be more gratifying to them than a fair appreciation of their efforts, shown by a large subscription list. Names should be sent to Dr. Osler, 1351, St. Catharine Street, Montreal. We append a list of the papers: On Crime and Insanity, by Joseph Workman, M.D., Toronto; Plea of Insanity in Courts of Law, by Edward Hornibrook, M.D., Mitchell, Ont.; Two Cases of Stenosis of Tricuspid Orifice, with Observations (Illustrated), by R. P. Howard, M.D., Montreal; Typical Case of Addison's Disease, by George Ross, A.M., M.D., Montreal; Case of Progressive Pernicious Anæmia, by John Bell, A.M., M.D., and William Osler, M.D., Montreal; Case of Supposed Gummy Tumour of the Brain, by A. Proudfoot, M.D., Montreal; On the Use of Acetate of Lead, in large doses, in Post-Partum and other Hæmorrhages, by Joseph Workman, M.D., Toronto; On Vital Statistics, by A. B. Larocque, M.D., Health Officer, Montreal; Various Wounds and their Treatment, by William Canniff, M.D., Toronto; On Ovariotomy, by E. Robillard, M.D., Montreal; On Vesico-Vaginal Fistula, by E. H. Trenholme, M.D., B.C.L., Montreal; Embolism of the Arteria Centralis Retinæ, by Frank Buller, M.D., Montreal; On the Origin and Development of the Epithelial Tumours of the Anterior Third of the Eye-ball, with some General Remarks, by Adolf Alt, M.D., Toronto; Optical Defects, by R. A. Reeve, B.A., M.D. Toronto; Excision of the Knee Joint, by George E. Fenwick, M.D., Montreal, (Illustrated.)

Physician's Office Case-Record and Prescription Blank Book. Price $1 50; *and the Physician's Pocket Case Record and Prescription Blank Book with Visiting List.* Price 35 cents each. Published by Robert Clarke & Co., Cincinnati.

These books are useful aids to the busy practitioner, enabling him to make a daily record of the prominent symptoms in each case, at the same time as he is prescribing. For physicians dispensing, the office case-record is very convenient.

Wyeth's Pharmaceutical Preparations.—For elegant preparations of the pharmacopœal medicines, this celebrated Philadelphia firm is unrivalled. Their elixirs make the most nauseous drugs palatable and even pleasant to take. Their compressed pills, or rather powders, are efficient and readily administered; they are made from the purest drugs, and containing neither gum nor mucilage, being coated with neither sugar, starch nor gelatine, are not apt to harden and become inert.

Wyeth and Brothers' name has become so identified with *Dialyzed Iron*, now so largely used throughout Canada, that it is almost superfluous to refer to it in favourable terms, as a tasteless, innocuous, but still most efficient hæmatinic preparation. We have examined their preparations of cod-liver oil with hypophosphites and with phosphate of lime. The former contains twelve grains, the latter sixteen grains of the lime salt to the ounce, dissolved in an agreeable emulsion of cod-liver oil, which can be readily taken by the most fastidious and irritable stomachs. Messrs. Perry Davis, Son and Lawrence, of Montreal, are the wholesale agents far Canada.

Miscellaneous.

Dr. Burdon Sanderson will deliver the Harveian Oration for 1878.

Dr. Stokes, F.R.S., the eminent Dublin physician, has had an attack of paralysis.

Dr. Handsel Griffiths, of Dublin, died on Nov. 16th, at the early age of 32.

Trinity College.—W. W. Geikie, C. F. Patten and W. G. Stark, received the degree of M.D., at the Convocation.

Drs. Kennedy, Robertson, Stuart, Teskey and D. B. Fraser have been appointed examiners in Medicine for Trinity University.

Dr. Graily Hewitt delivered the Harveian Lectures on the evenings of Dec. 5th, 12th and 20th. His subject was "The Mechanical System of Uterine Pathology."

Dr. E. L. Griffin's Pure Animal Vaccine Virus.—Having thoroughly tried the vaccine points advertised by Dr. Griffin, of Fond-du-lac, we can with pleasure testify to their efficiency, and commend them to our readers. In all cases in which we have used them we have had successful results, and no untoward symptoms.

The by-laws of the College of Physicians and Surgeons of the Province of Quebec, including the medical tariff of fees adopted at the meeting of the College held on the 27th of September last at Laval University, have been approved and sanctioned by the Lieutenant-Governor in Council, and are now law.

In connection with Trinity Medical College and the Toronto School of Medicine an association has been formed under the name of "The Medical Students' Christian Association," whose officers for the present are :—President, D. Lowrey; Vice-President, J. W. Bremner; Secretary-Treasurer, W. H. Burton; Executive Committee, the above officers, Captain Teevan, and Mr. Dunfield.

Intra-Ocular Enchondroma.— Dr. Rosebrugh, of Toronto, lately removed an eye from a patient suffering from intra-ocular tumor. The specimen was examined, microscopically, by Dr. Zimmerman, and found to be a sarcoma with typical enchondromatous nodules in its interior. This is, we believe, the second case of enchondroma of the eye on record.

Trinity Medical School Annual Dinner.—The first annual dinner of Trinity Medical School was held on November 22nd, at the Queen's Hotel. The chair was occupied by Mr. Charles Sheard, and the Vice chairs by Messrs. W. H. Doupe and B. Spencer.

Among those present were: The members of the Faculty, Mr. Justice Morrison, Senator Campbell, Hon. W. Macdougall, Hon. M. C. Cameron, Dr. Workman, Dr. Clark, Dr. Henderson, of Halifax; the Mayor, &c. Letters of apology were read from Sir John A. Macdonald, Mr. Justice Gwynne, Hon. O. Mowat, Hon. A. Crooks, Hon. Geo. Brown, Dean Grasett, and others.

The usual loyal toasts having been duly honored, the toast of the Faculty was received with great applause, and suitably acknowledged by Drs. Hodder, Bethune, Geikie and Fulton. Dr. Workman replied for "The Canada Medical Association," Dr. Geikie for "The Ontario Medical Council," Hon. M. C. Cameron for "The Learned Professions," Dr. O'Rielly and Mr. McCrosson for the "General Hospital." During the evening music was furnished by the 10th Royals band, and singing by Dr. Kennedy, Mr. Eccles and others.

Births, Marriages, and Deaths.

BIRTH.

At Woodbridge, on Monday, the 19th inst., the wife of John Wilkinson, M.D., of a daughter.

MARRIAGES.

At St. George, on the 12th inst., Mr. James L. Baugh, of Ingersoll, to Florence, only daughter of N. E. Manwaring, M.D.

On the 18th inst., at St. Andrew's Church, Grimsby, R. A. Alexander, M.D., of Grimsby, to Sarah Harriet, eldest daughter of the late Alfred Booker, Esq., of Montreal.

In St. Mark's church, Niagara, Ont., on Tuesday evening, November 20th, by the Rev. Archdeacon McMurray, William Travers, of the Merchants, Bank. St. Thomas, only son of the late Richard Walsh Travers, Esq., M.D., of Fingal, Ont., and step-son of Dr. Justin, St Thomas, to Fannie D., fourth daughter of the late Albert Sawin, Esq., Attorney, &c., Buffalo, N.Y.

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TORONTO. FEBRUARY, 1878.

Selections: Medicine.

THE USE OF DIGITALIS IN DISEASE OF THE AORTIC VALVES.

BY J. MILNER FOTHERGILL, M.D., EDIN., M.R.C.P.L.,

Assistant-Physician to the West London Hospital; Assistant-Physician to the City of London Hospital for Diseases of the Chest, Victoria Park.

The means by which digitalis is useful in diseases of the mitral valve, where its utility is almost universally admitted, cannot detain our attention at present. Its use in disease of the aortic orifice is the division of the subject with which we are engaged to-day.

The power of digitalis to induce more powerful contraction of the muscular walls of the heart is now generally admitted. The evidence does not rest merely upon careful clinical observation, but upon the less complex and more valid testimony of direct experiment. The weight of evidence thus furnished from these two sources is such as to be irresistible with the majority of medical men; a few, however, are still unconvinced. My own attention has been very powerfully attracted to the action of this drug for a number of years; and the more extensive my experience, the greater is my confidence in digitalis in all cases where it is desirable to induce more powerful ventricular contraction. It relieves palpitation by substituting a normal and comparatively unfelt contraction for the sensible stroke of laborious effort.

Before proceeding to explain the action of digitalis in disease of the aortic valves, we must first glance at the pathology of aortic valvulitis. The function of these valves is to close the aortic orifice and prevent the regurgitation of blood into the ventricular chamber on the aortic recoil. The ventricle at each systole throws so much blood into the aorta, which being elastic, is distended; the recoil or systole of the aorta closes the aortic valves, which prevent reflux of the blood, and so the blood is driven forward by the aortic recoil into the smaller arteries. When the obstruction to the blood-flow from the aorta is increased, two different actions or morbid processes ensue. First, the blood-pressure is raised and the obstruction to the flow forward of the blood on the ventricular systole is increased, and hypertrophy of the muscular walls follows. Then the ventricle is enabled to cope with the increased obstruction to the blood-flow, and the ventricle can empty itself completely at each systole. Such is the simple hypertrophy of Bright's disease in its earlier stages, and these are the patients who afford us most of the aortic valvulitis of advanced life; the aortic valvulitis induced by muscular effort is chiefly found in young men. We have then an obstruction to the blood-flow, an increased blood-pressure, and a powerful ventricle, and the result is, that the aorta is unduly distended at each ventricular systole. The rebound of the elastic aorta, commonly termed the aortic recoil, is in strict proportion to the amount of distension, and consequently, with an abnormally powerful recoil, the valves at the base of the aorta are violently closed. This gives the accentuated aortic second sound so significant of this condition. Not only that, but the powerful closure leads to valvulitis and a growth of connective tissue corpuscles in the valvular vela. Distortion, then, is thus produced, and the valves either present an obstacle to the forward flow of the blood, or they fail to arrest regurgitation on the

aortic systole ; or these conditions may be found combined. Hayden gives aortic obstruction and regurgitation as the most common of combined valvular lesions. Whether contraction of the valves will follow this growth of connective tissue or not, cannot be foreseen ; it is certain, however, that regurgitation from insufficiency is more common in young persons, while thickening of the valvular vela so as to constitute obstruction is more common in elderly persons.

In aortic stenosis or obstruction, the valves are not only thickened and rendered much stiffer than they are normally, so as not to yield readily to the pressure of the blood on the ventricular systole, but the process of chronic inflammation involves the base of each segment or cusp, and the growth of connective tissue there leads to contraction of the conus, and so stenosis is induced ; consequently the ventricular wall has in its contraction to overcome a new resistance in the form of stenosis with rigid valves, as well as the normal resistance of the elastic aortic walls or the blood-pressure. Under these circumstances, simple hypertrophy without dilatation is found ; in aortic regurgitation, the centrifugal distending force of the aortic reflux produces enlargement of the ventricular chamber. In aortic stenosis, we have a narrowed orifice with an increase in the driving power, and thus a new balance is maintained. Pure aortic stenosis is a disease which often exists a long time ere it is discovered, and commonly its recognition takes its origin in an examination for insurance. There is usually no enlargement of the ventricular chamber, and the hypertrophied heart secures a normal circulation of blood. At other times, medical aid is sought and relief is furnished by the administration of digitalis. At first, Sir Dominic Corrigan explained this beneficial result as being due to the slower contractions induced by digitalis ; and that a longer systole gave more time for the blood to pass the narrowed orifice. If this were the case, the arteries would still remain unfilled as before ; and, if the ventricular contractions are more complete, they would be so many fewer in the minute, and the amount of blood passing the aortic orifice in a given time would remain the same. But digitalis does not so lengthen the systole, and Balthazar Foster says : "The diminution in the frequency of the heart's beats under digitalis always means an increase of the period of the dilatation of the ventricles. Pulse-traces readily show this." In aortic stenosis, Nature, when her efforts are sufficient for perfect compensation, does not achieve a new equilibrium by retarding the ventricular contractions, but by hypertrophy of the ventricular walls. So with the beneficial effects of digitalis, these are not the outcome of a prolonged systole, but of an increase in the driving power, brought about by more active ventricular contraction. Where, then, a left ventricle is found faltering before, or rather behind, an aortic stenosis, digitalis will restore the lost equilibrium, and by enabling the ventricle to drive an equal quantity of blood through a narrowed orifice in an equal time, a new balance is attained, and a normal blood-flow is secured. It may be urged, and with justice, that the effect of digitalis is to produce contraction of the peripheral arterioles, and so raising the blood-pressure to create a new or additional obstruction to the blood-flow ; but, practically, this is of no moment ; it is not the blood-pressure in the arteries which taxes the powers of the left ventricle ; it is the tight stenosis against which it has to struggle. The effect upon the heart more than counterbalances the action upon the peripheral vessels when digitalis is given.

The changes which lead to aortic regurgitation, and the subsequent alterations in the muscular walls of the heart, and the indications for treatment furnished by them, will now engage our attention.

In the form of aortic valvulitis which leads to insufficiency rather than stenosis, though very commonly these two forms are combined, it seems that the free edges of the semilunar are effected rather than the base. The consequence is, that the valves shrivel along their free edges, and, though not presenting the same obstruction to the blood-flow as is the case with the rigid, thickened valves, they are incompetent and insufficient to completely arrest the backward flow of the blood on the aortic rebound or systole. The changes in the walls of the heart which follow

aortic regurgitation are worthy of careful consideration, and teach us a most instructive lesson in the study of cardiac pathology. This hypertrophy of the heart is the means by which dilatation is arrested rather than a measure to increase the power of the ventricles, and enable it to overcome some obstruction. We are much too apt to assume that the latter is essentially the condition which evokes hypertrophy. I will arrange the evidence as briefly and tersely as the subject permits. 1. Hypertrophy does not always follow an obstruction to the flow forward of the blood on the ventricular systole. Though it is the common result, it does not always form the result. In anæmic systems, in chronic Bright's disease, dilatation is found instead of hypertrophy; this is especially seen in women. 2. Hypertrophy is found under circumstances where there is no obstruction to the blood-flow, notably in the hypertrophy of the left ventricle so commonly seen in mitral regurgitation (Niemeyer, vol. i, p. 318, ed. of 1870). Again, as the same authority tells us, hypertrophy is frequent in cardiac dilatation, the result of partial myocarditis accompanying pericarditis (p. 298 of the same edition), by which the dilatation is limited. In both these instances, there is no obstruction to overcome, but in each there is a dilating process to be arrested. In mitral regurgitation, the blood rushes into the left ventricle with unwonted force from the distended auricle and veins behind it, and a dilating process is so set up, which, in well nourished organisms, is limited by a growth of muscular fibre. There is no similar enlargement of the left ventricle in mitral stenosis, though there the auricle and pulmonary veins are equally distended; but then there is an abnormally small, and not an unnaturally large orifice, through which the blood can flow furiously into the left ventricle. In the case of softened walls, leading to dilatation by the normal inrush of blood, the dilating process sets up hypertrophy sooner or later; sooner in well nourished organisms, later in debilitated systems. How dilatation induces hypertrophy, cannot be given here. It is not the place, even if the time could be spared.

This brief digression will enable us all the more readily to see that, in pure aortic regurgitation, the growth of the walls of the heart is not the result of any obstruction to be overcome; for none such exists, or, if so, only to a trifling extent. But there is a dilating process to be arrested. When the aortic valves are rendered incompetent, the left ventricle is no longer filled solely by the blood coming in from the auricle and pulmonary veins—a comparatively calm current—it is also filled by a second blood-current—the blood driven backwards by the aortic rebound through the insufficient aortic valves. The distending power of this new current is a very different matter from the normal current, which is itself undiminished. There is, indeed, no diminution in the normal distending force, while there is added to it a new force of unusual and unwonted power. The ventricle is now, in fact, distended by the aortic recoil, and the regurgitant current possesses great distending force. The ventricle yields before this new force, and dilatation would soon become marked and the ventricle be placed *hors de combat*, if it were not for the hypertrophy which, coming to the rescue, arrests the dilating process and limits the dilatation. It is under these circumstances, indeed, that we find the most massive hypertrophy—the *cor bovinum* in fact. The hypertrophy is not to overcome obstruction here, but to arrest dilatation. It is necessary to be clear about this, in order to comprehend the indications for treatment. We do not, under these circumstances, require more forcible ventricular contraction—the effects of digitalis; for the powerful and enlarged ventricle is already working ruin in the arterial walls, which, at every systole, are distended by the contraction of a ventricle, not only much more powerful than a normal ventricle, but holding a larger quantity of blood. The overdistension to which the arteries are subjected produces chronic parenchymatous inflammation of their walls, or atheroma (see an article by the writer in the *Philadelphia Medical Times*, August 7th, 1875, on "Atheroma"), and to administer digitalis here is to aggravate the evil. Already the contraction of the enlarged ventricle overdistends the arteries, so that the pulsation may be seen in the arteria centralis retinæ with the ophthalmoscope; and, to administer an agent like digitalis, which, as Balthazar

Foster tells us, prolongs the diastole, would be injurious. By delaying the diastole, the ventricle will be all the fuller, and all the longer exposed to dilating forces; while the action of digitalis in producing a more vigorous contraction of the ventricle will only tend to all the sooner ruin the arterial walls. The agent here, if we possessed a drug of such properties, would be one which should lessen the diastole and limit the force of the ventricular systole; the antagonist, indeed, of digitalis. In the early stages of aortic regurgitation, then, digitalis is contraindicated. Such, however, is not the case in the more advanced or later stages.

In order to make this clear it is necessary to trace the further progress of aortic regurgitation. We stopped the inquiry above at the point of massive hypertrophy; we must now follow the downward progress of this pathological process. The arteries, as we saw, became atheromatous from the overdistension to which they are subjected, and they lose their elasticity, and so the arterial recoil is diminished. This would be beneficial in reducing the dilating power of the regurgitant cuerent, if it were not also the fact that the aortic systole is the force which fills the nutrient vessels of the heart itself. The coronary arteries, seated at the base of the aortic column, are filled by the backward flow of the blood on the aortic recoil arrested by the semilunar valves. When, then, the aorta loses its elasticity, and the recoil is lessened, this loss of arrest in the backward flow of the blood leads to imperfect filling of the coronary vessels, and the nutrition of the heart-walls is impaired. Consequently, the hypertrophy of aortic regurgitation, though the most massive, is the least durable of all conditions of hypertrophy. Mauriac has pointed out the why and wherefore of this fleeting hypertrophy; and Balthazar Foster has given a still more brilliant illustration of the subject by showing that, when an aortic valve is ruptured by violence, the duration of the consecutive hypertrophy depends largely on which of the valves is affected. If the torn valve have a coronary orifice behind it, the compensatory hypertrophy is brief, and the downward progress of the case swift; but, if the valves behind which the coronary arteries spring are the uninjured ones, the complete valves arrest to some extent the backward flow, and so the integrity of the muscular walls is maintained and the hypertrophy is more lasting. (*Clinical Medicine*, and *Medical Times and Gazette*, December, 1873.)

When the hypertrophy is being cut down by molecular decay, the consequence of impaired tissue nutrition, the ventricle falters and its contractions are wanting in vigour, the arteries are insufficiently filled, and the coronary flow is still further diminished, leading to still further mural decay. The muscular structure is being undermined, and the ventricle yields once more to the dilating forces of the incoming currents, and not rarely hesitates. The system is insufficiently supplied with blood, and the case progresses rapidly on its downward career. Under these circumstances, the administration of digitalis gives relief, and its use is not only permissible, but beneficial. By exciting more perfect contraction in the faltering ventricle a fuller and better circulation is secured, and the case is tided on for a while. But that is all. When there is also intermittency in the heart's action, and there is a long diastole, during which the dilating forces are in action and the ventricle is almost paralyzed by its long halt, then the administration of digitalis is very beneficial. It not only excites more powerful ventricular contraction, but it does away with the long diastolic halt, and with it the tendency to ventricular paresis. This I have seen in several instances and notably in a case quoted by my friend Dr Clifford Allbutt in his well known essay on the *Effects of Overwork and Strain on the Heart and Great Blood-vessels*. Here there was the common double aortic disease, where the regurgitation was marked, and at times the ventricle halted over as many as four beats. The man was already confined to bed, but the rest alone was insufficient to inaugurate improvement. Digitalis and steel soon made a marked difference: the man was up and about in a short time, and got so well that once more he went down the coal-pit to work; it must be said with the most disastrous consequences, for in a few days he was dead.

In advanced aortic regurgitation, digitalis may be given to delay the inevitable end, but more cannot fairly be expected from it. Its use

in mixed or double aortic disease must be determined by the nature and indications of each case, and especially by the condition of the ventricular walls. When the ventricle falters, digitalis may be safely resorted to; till then it is better withheld. We may sum up as follows.

1. Digitalis is useful in aortic stenosis. By exciting a more powerful ventricular contraction, it enables an equal bulk of blood to be driven through a narrowed orifice in an equal time, thus establishing a new equilibrium.

2. In the earlier stages of aortic regurgitation, with massive hypertrophy, it is harmful rather than useful.

3. In the later stages of aortic regurgitation, where the heart failing from mural decay, and especially when intermitting, digitalis may be given with at least temporary advantage.—*Brit. Med. Journal.*

SOME AFFECTIONS OF THE NERVOUS SYSTEM DEPENDENT UPON A GOUTY HABIT.*

BY J. RUSSELL REYNOLDS, M.D., F.R.S.

Professor of the Principles and Practice of Medicine in University College, and Physician to University College Hospital; etc.

The dependence of "nervous derangement" upon a "gouty habit" has long been known; but I do not think that the frequency of such association has been fully recognized; and my object in writing this paper is to recall attention to the subject, and to point out, so far as I am able, the characters of disturbances in the "nervous" functions which would lead to a diagnosis or suspicion of a "gouty" diathesis.

First, let me say a word or two as to both "gout" and "gouty habit." The former means a "special" change, of inflammatory sort, in the tissues of the joints, accompanied by the deposit in those tissues of urate of soda. The latter, the "gouty habit," means the underlying cause of those special symptoms in the joints, a something which may express itself also in various organs and in diverse ways.

We do not know what is the starting point or essential fact of "gouty habit," but this we may remember, that between the simply chemical process of food-digestion in the stomach, and the ultimate making up, and breaking down, and carrying away of the waste, of tissues—be they in brain, or nerve, or heart—there comes in the process of "assimilation"—or "concoction of the juices," as our forefathers called it—and also the conveyance of "excretory" material to excreting organs, and that these involve an infinity of changes in the quality of blood. This blood, which comes from food and goes to tissue, which comes from tissue and goes to excreting organs, may be healthy and lead to the formation of healthy tissue and the performance of healthy function; or it may be so deranged as to pervert the "nutrition" of certain tissues by a specific inflammatory process—"gout"; or it may disturb the "functions" of other organs by the impression which it makes upon them—"gouty habit." In other words, the "gouty habit" is a "toxæmia," chronic in its duration and multiform in its phases—a "blood-poisoning" induced *within* the system, and so far forth differing from the toxæmiæ with which we are so familiar, but which are introduced from *without*. That which has led me to believe that many so-called "nervous affections" are due to this "gouty habit" may be thus summarised. 1. The actual presence of gout in the joints of the individual at the time or at previous times. 2. The evidence of "gout" in ancestors or collateral relatives. 3. The frequent occurrence of acid eructations with chronic dyspepsia. 4. The emission of pale, limpid, acid urine, of low specific gravity, and with traces of albumen or sugar, or both. 5. The variability of symptoms, both as to kind and place. 6. The presence of some alterations in skin-nutrition, such as eczema and psoriasis. 7. The impossibility of referring the symptoms to any known disease of brain or spinal cord. 8. The immediate relief of such symptoms after treatment by colchicum and saline aperients, although simple purgation and treatment upon many other principles had failed.

In the endeavour to arrange this subject, there is great difficulty to be encountered; but I will adopt the method of describing "groups of symptoms" under five headings.

1. *Mental Disturbances.*—Many cases have come before me in which there was great restless-

* Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Manchester, August, 1877.

ness; the patient could not be still for a moment; was alternately excited and depressed; slept badly, or not at all; was intensely hysterical; and could not attend to business; while others have complained of failing memory; of want of power of attention; of suicidal thoughts; of intense melancholy; others of sounds in the ears; voices, sometimes distinct, sometimes not; and some or all of these of long continuance; but yet all disappearing under treatment upon the hypothesis I have mentioned. These symptoms often alternate with, or accompany, those which I mention next.

II. *Pain in the Head.*—Some of the most intense head-pain that I have met with has been of this character, and been relieved by treatment of an anti-gouty description. The special features are pain on one side of the head, usually parietal or occipital; "grinding" habitually; but forced into almost intolerable severity by movement, such as the jar of carriage-riding, or running down the stairs of a house; and this without any oversensitive nerve-points; without tenderness of scalp; and without any aggravation by mental exertion. It is not affected by posture or by food; it is relieved by physical rest, and may disappear entirely after treatment of the kind that I have mentioned. It is not anæmic, nor neuralgic, nor dyspeptic (in the ordinary sense of that word), and it yields to nothing in the way of treatment that may be directed against those common varieties of headaches. It is very often associated with some of the other symptoms that I have mentioned, and they must be taken into account when making a diagnosis of the malady.

III. *Modified Sensations.*—1. Of these, vertigo is one of the most common, and it may exist alone. It takes sometimes the form of objective movement, but more frequently that of subjective movement, such as the sense of "swimming" or "floating" away. The vertiginous sensation is sometimes determined by posture, and occurs only when the patient lies on one side, it may be the left or the right; the apparent movement of external objects being from that side towards the other.

2. With vertigo is often associated "noise in the ears," not the sound of "voices," but drumming, hissing, singing sounds, recognized to be in the ears, or in one ear, or in the head, and not appearing to come from outside. There is not, or need not be, any mental delusion with regard to these; the patient knowing well that they are inside his organism.

3. Associated with such vertigo and tinnitus there is frequently deafness, and the feeling of "beating in the ear"; and the symptoms are like those described by Menière; but I have found them in the vast majority of instances associated with a gouty habit. With vertigo and tinnitus there may be much mental depression, or attacks of bewilderment, amounting sometimes to those of *le petit mal.*

4. Modified sensations in the limbs may occur. A large number of people complain of "numbness," "tingling," "creeping," "deadness," or some other altered state of sensibility in the limbs, which, sometimes taking a paraplegic, sometimes a hemiplegic, distribution, have caused much anxiety; and the more so, because the suggestion of organic disease of brain or spinal cord has sometimes been conveyed, and yet all these troubles pass away. That which I have observed to be in them the most characteristic of their gouty origin is their variability in kind and locality. To-day, for example, there is "coldness" in the left leg; to-morrow, "a sense of heat"; last week, a "pricking" in the right hand; the week before, a "stinging" feeling on the side of the head, or in the tongue. This wide distribution and variability, so alarming to the patient, is much less alarming to the physician, who recognizes in these very facts the elements for a favourable prognosis.

Here, too, I must mention the great frequency with which pains, flying pains, darting pains, often like those of ataxy, are met with in the limbs. So-called "sciatica" is of frequent occurrence, and "pleurodynia," and "myodynia" of all localities are common enough. The sciatica of gouty sort is often double, shifting from side to side with a frequency that does not improve the temper of the gouty patient, but may raise the hope of his physician as to the probability of cure. Other seats of pain are most frequently the insertion of the deltoid muscle and the inner aspect of the upper arm, the ankles, the heels, and the interscapular

region. The lower mammary region on the left side is often the seat of pain, as it, indeed, is in many other maladies.

IV. *Modifications of Muscular Action.*—1. Cardiac palpitation, intermittence or irregularity of pulse, or painful aortic pulsation at and below the epigastrium, often suggest to the patient the presence of cardiac disease; and it is worthy of remark that, on the one hand, a very great amount of discomfort may often be felt by the patient when the physician can discover no change in sound of heart or rythm of pulse; and that, on the other, disease of aortic valves, and other obvious signs of cardiac change, may often be discovered by the physician in a gouty patient, he having never been conscious of any thoracic trouble.

2. Flickering contractions of muscles in the limbs; tonic spasm, with cramp-like pain; and "startings" on falling asleep have often appeared to me to be of gouty origin, and that for the reasons that I have assigned. Priapism, without erotic feeling, is also very common. It sometimes disturbs the sleep, is felt on awaking, but quickly disappears without emission.

3. Local weakness of muscles, such as ptosis, single or double; want of co-ordination of movement of the limbs, both upper and lower, giving an awkwardness of movement and an ataxic gait—are among the symptoms that may have the course and history that I have suggested. I have recently seen several cases of ataxia, and one with marked double ptosis, which had been treated unsuccessfuly upon a syphilitic hypothesis, but which recovered speedily when the treatment was based upon a gouty theory.

V. Lastly, there are symptoms beyond those which I have mentioned, and which do not form part of the matter for my description now, but which I will simply enumerate as being further guides or helps in the diagnosis of gouty cases: 1. Dyspepsia, cardialgia, distension of stomach and colon with flatus, pyrosis, and acid eructations; 2. Varicosity of veins, with tendency, upon slight injuries, to occlusion of veins; 3. Brittleness and vertical lining of the nails of both fingers and toes; 4. Slight conjunctivitis with occasional chemosis.

The groups of symptoms that I have enumerated rather than described sometimes coexist, sometimes alternate, and their phases are often very puzzling. They present great difficulties in diagnosis and in treatment until the clue is caught. It is often saddening to look through the carefully cherished prescriptions, and especially when they are one's own, and see the long array of drugs that have done no good—iodine, bromine, strychnine, quinine, zinc, iron, silver, cerium, arsenic, valerian, and hops, to say nothing of mercury, bitter infusions, mineral acids, and the like; but then one's sorrow may often be turned into joy—and a joy in which the patient most heartily participates—when a simple treatment, such as I have suggested, is adopted, and all the troubles disappear with a rapidity that seems quite magical, and reminds one of that beautiful process of clearing a photographic picture by cyanide of potassium.

DIAGNOSIS, COURSE, AND TREATMENT OF CANCER OF THE STOMACH.

Professor Rüle, of Bonn, in the *Deutsche Medicinische Wochenschrift*, has a lengthy article on this subject which we should like to reprint entire did space permit. He says:

"The disturbances of gastric function are not prominent, or at least, characteristic. The feelings of weight, uneasiness, and gnawing are present in other diseases, and vomiting cannot decide the question. Goodsir's sarcinæ are present wherever the contents of the organ are long retained, and even 'coffee-grounds' vomiting is not peculiar to cancer. But these symptoms, especially the last, combined with increasing cachexia, narrow the range of possibilities and makes carcinoma very probable. Vomiting of blood, especially copious, is rare. Chronic recurrent ulcer may give rise to very marked thickening of the wall near the pylorus. Cancer and ulcer do not exclude each other."

Rüle has never seen cancer produce such copious hæmatemesis as occurs from the rupture or erosion of a large vessel in the epigastrium or its neighbourhood; and, apart from ulcer, knows only of cirrhosis of the liver, or perhaps rupture of a dilated vein in an over-distended stomach, as rarer causes of hæmatemesis.

A case of profuse hæmatemesis is cited

in which villous cancer was found *post-mortem;* and reference is made to purpura, scurvy, and epistaxis as occasionally being the cause of hæmatemesis.

"The presence or absence of enlarged lymphatic glands or swelling in the clavicular region is of little significance, as they are often absent in cancer, and present from other causes. The forty years traditionally supposed to be the necessary age, does not help in doubtful cases, as cancer has been shown to occur at twenty. On all these grounds the repeated appearance of 'coffee-grounds' vomit in an individual who shows signs of increasing cachexia and gastric derangement is of much significance. Yet when to these always doubtful signs we add the presence of a tumour in the epigastrium error is quite possible, even excusable, or perhaps not to be avoided. Putting aside the difficulties of ascertaining that a tumour in the epigastrium is really connected with the stomach, let us assume that a tumour thus defined has the peculiarities of that hard and nodular condition which we claim for cancer itself, yet the tumour may be only a thickening of the wall of the stomach, resulting from a chronic ulcer, and consisting of inflammatory fibroid growth. Further on I will relate just such a case. On the other hand, a smooth, painless tumour of the stomach-wall may be a cancer. A non-characteristic tumour may be cancer, while, on the other hand, a hard nodulated painful tumour may not be cancerous at all."

A case is then related in which there was pain, vomiting, anæmia, emaciation, pallor, and debility, with an uneven hard, tender, tumour in the epigastrium of a man aged 44. Under treatment he improved for a time, the tumour not increasing in size; but, finally, he was attacked with hæmatemesis recurring in twenty-four hours, and very quickly followed by death.

"During life the unchanged condition of the tumour had shaken the diagnosis of carcinoma. The history did not permit us to accept the diagnosis of ulcer. That must have existed long previously. The tumour then could only be the result of an old long-standing chronic inflammatory process, and blood had never been vomited. Finally, death followed the erosion of an artery and hæmorrhage into the cavity of the stomach. Dissection showed a large, almost healed loss of substance, with fibroid induration of the wall of the stomach over a considerable extent, and of remarkable thickness. The morbid process cannot be considered carcinomatous in the absence of cancerous elements and secondary carcinomatous affection. The nodular tumour of the stomach, felt during life, was not cancer.

"Whilst the history misled us, the observation of the unchangeability of the tumour corrected the mistake, and the fatal hæmatemesis which occurred confirmed the view that it was not cancer; and thus the verdict before death was in harmony with the verdict after dissection. That a tumour of the stomach may be regarded as a cancer, it is necessary to add, as this observation has shown, that its dimensions demonstrably increase. This addition has recently shown its value.

"A tumour may be so placed and conditioned that it appears not to be connected with the stomach, and so long as no stomach troubles are present, a diagnosis of the tumour as cancer, still less of cancer of the stomach, is hardly possible.

"A large strongly-built man, aged 43, presented himself. He showed no cachexia; his countenance was still ruddy. He complained of pressure in the left hypochondrium, and of frequent desire to pass urine. At the level of the left costal margin a smooth oval transversely lying tumour could be felt, eight centimetres long and five centimetres broad, which could be moved from right to left, and appeared little painful. Appetite was undisturbed; there was no nausea nor vomiting. From this account it seemed probable that the tumour was a dislocated organ—spleen or kidney. The next week the tumour was changed; it was more extensive. Later it became distinctly larger, rounder, and now began loss of appetite, vomiting, and debility. In the later stages coffee-grounds vomiting appeared, and the patient fell into a marasmic state. Dissection showed that an ulcerating medullary carcinoma of the greater curvature of the stomach, midway between the pylorus and the fundus: from the growth of the tumour, the cachexia,

and finally the coffee-grounds vomiting, there was sufficient evidence of carcinoma; but, at first, the diagnosis of the tumour was hardly to be made.

"In concluding these remarks on diagnosis, I may say that there are very rapidly growing cancers of the stomach which, from their consistence, are not to be felt in fat people, or when they are so placed that they are not accessible to the touch. . . . .

"In the course of cancer of the stomach, rupture may occur. I saw a case of rupture into the peritoneal cavity, with so rapid a fatal ending, that peritonitis did not come on. The patient, who had been long affected, and whose cancer was easily recognizable, complained suddenly of a severe stomach-ache and collapse, after twelve hours of pulseless exhaustion. The contents of the stomach, gray, slimy, with remains of food in it, ran into the abdominal cavity. The stomach showed a very extensive carcinoma, which reached from the posterior wall to the pancreas, and near it was found a long sharp rent in the border of the tumour, the stomach itself being empty. At Griefswald I saw another case of a tumour near the abdominal wall, which gradually ulcerated through, and discharged the contents of the stomach for eight days during life; one could pass a probe a long way into the cavity; there was a cancerous gastric fistula."

A case is here recorded in which there was, undoubtedly, cancer of the pylorus with great dilatation of the stomach, the greater curvature reaching to the symphysis pubis, with scanty urine and symptoms of collapse threatening an early fatal issue, in which considerable relief followed the use of the stomach-pump occasionally, and the ingestion of a large quantity of water. The tumour even increased in size, though the patient was able to leave her bed, and death took place five and a-half months after.

Prof. Rüle speaks somewhat favourably of the palliative influence of condurango in relieving anorexia, vomiting, and pain.—*London Medical Record.*

A case of arsenical poisoning successfully treated with dialysed iron, is reported by Dr. Thomas B. Reid, of Philadelphia.

THE PATHOLOGY OF GRANULAR KIDNEY.

In the September and October numbers of Virchow's *Archiv*, Dr. Richard Thoma of Heidelberg has communicated a series of observations upon the changes in the circulatory apparatus of granular or contracted kidneys, which are very welcome in the present state of the question. His first experiments were directed to ascertain the relative permeability, under constant pressure, of the renal vessels in this disease, as estimated from the outflow from the renal vein, comparing this with the same as observed in healthy organs, the comparison being made under equal conditions of age. The result is to show that not only is the actual quantity which can be passed through the organ in a given time reduced very largely, as the smaller size of the organ might make us expect, but the proportion of the amount passing out by the renal vein to that introduced by the renal artery is much less than in healthy organs. He asks, is this due to the compression on the vessels by the new growth, or is it to be explained by a greater outflow through the walls of the vessels into the tubules? His next observations were to make very careful estimations of the weight of the kidneys at each period of life, and to measure with great accuracy the sectional area of the renal artery; and, having established the mean weight of the kidney to be 150 *grammes*, he calculated out a table of its variations for the different periods of life, corresponding to the variations in weight at those periods. He also carefully measured the sectional areas of the interlobular arteries midway between the cones and the capsule, and again near the capsule, of the vasa afferentia, and of the glomerulus itself; and he gives a table of these at different ages, from birth to forty-three years. He also estimated the areas of the interlobular vessels, and constructed a table showing their relation to the size of the individual lobules and the total weight of the organ; and from these data, taking the mean weight of a lobule to be ten cubic *millimètres*, he calculated the mean sectional area of the interlobular arteries for the first four decennial periods of life. He also calculated the volume of fluid which can pass through the kidney in a given time at different

ages from three to twenty-seven years, showing that it increases with growth of the organ. He then examined granular kidneys and determined all these points, still taking account of differences in age, with the following results. The sectional area of the renal artery in granular kidney is very slightly smaller than in healthy subjects of the same age, but relatively to the weight of the organ it is from a fifth larger to twice as large. The interlobular arteries in both places, the vasa afferentia, and the glomeruli, are all absolutely larger. By another series of experiments, he found that the rapidity of the flow of fluid in the renal artery of granular kidneys was not half, often not a fourth, of what it is in the renal artery of a healthy kidney. He also shows, by a very large number of observations, that the transverse section of the renal artery grows wider as the organ undergoes development, and proportionately to the weight of the kidney; and, further, that the peripheral resistance to the entering fluid grows relatively less, so that a greater quantity of blood passes in a given time through the organ.

By careful comparison of the effects of coloured injections on sound and on granular kidneys, he found that the latter permitted fluid to pass through the walls of the blood-vessels with much greater ease; and not fluid only, but gelatine, Prussian blue, chloride of sodium, and even solid grains of cinnabar, and this without rupture of the coats of the vessels; this happened, not on those parts which showed most connective-tissue growth, but in the vessels still otherwise apparently healthy. Careful injections proved, too, that the capillary network in granular kidneys was very scanty, and that, in many cases, the vasa afferentia anastomosed directly with the efferent vessels, being cut off from the glomerulus by the growth of fibrous tissue. On the changes in the walls of the vessels, he remarks that as a rule, in spite of the fibroid growth of the intima, the lumina of the vessels are not smaller than normal; only exceptionally, when the endarteritis has reached a high grade, does this take place. He regards these changes as connected with those endarterial processes — described by Köster, Friedländer, Trompetter, and others—as taking place in almost all new formations of connective tissue, as they bear a distinct relation to the amount of interstitial growth. These facts are especially opposed to Gull and Sutton's theory that the narrowing of the lumina of the vessels by the new growth causes the obstruction to the circulation; they agree with independent observations that, as a rule, the vessels in granular kidneys are certainly not of less calibre than normal; they prove that the anatomical condition of the organ itself, independent of any vital changes, such as arterial contraction, causes a great increase in the resistance to the circulation through it; they explain the clinical phenomena of polyuria and albuminuria by the increased permeability of the vascular walls. We should very much like to see similar investigations on the state of the vessels in other organs, and especially the skin, in this disease, to determine whether a similar diminution of the capillary area is present. General capillary anæmia is undoubtedly a marked feature of even the early stages of this disease, and it is at least possible that the same cause, acting generally, may produce, although to a less extent, an universal reduction of the capillary network.—*Brit. Med. Journal.*

Treatment of Dysentery by Injection of Nitrate of Silver. Dr. H. C. Wood, in the Philadelphia *Medical Times*, reports several cases of dysentery cured by injecting nitrate of silver. He uses from forty to sixty grains dissolved in three pints of water, and advises common salt to be injected if the nitrate does not come away in from ten to fifteen minutes. No change in the diet at the time of the injections was made, and no medicine, save a little opium, was given. Some of the cases had been treated for from one to seven weeks with other remedies without relief. Two to four injections were in some cases sufficient.

Treatment of Carbuncle.—Dr. C. B. Leitner, in a paper read before the Georgia Medical Association, advocates exhausting the matter from carbuncles by the use of cupping glasses, dressing the wound with carbolic acid in the intervals of application. After the first application great relief ensues.

ACUTE RHEUMATISM : HYPERPYREXIA : RECOVERY.

BY T. CLIFFORD ALLBUTT, M. A., M. D.,
Physician to the General Infirmary, Leeds.

Mr. W., aged about 25, was attacked in August last with acute rheumatism. The disease pursued a favourable course, without heart complication. Salicylate of soda was administered on Friday, August 10th. During apparent improvement, the perspiration suddenly ceased: a phenomenon which caused some anxiety to his medical attendant, Mr. Oxley, of Pontefract. On Saturday, Mr. Oxley was still more uneasy on finding that all pain had entirely vanished, the limbs being thrown easily about in bed. The temperature also was found to be two degrees higher than the day before. Salicylate of soda was recommended in considerable and frequent doses; but the temperature continued to rise all that day and during Sunday. On Sunday night, there was much delirium; and early on Monday morning a message was despatched to me. On my arrival at about 9.30 A.M., the patient was lying on his back; his face was deeply flushed; and he tossed his head uneasily from side to side in delirium, or sank into stupor. The delirium and stupor alternated every few minutes. The temperature was now found to be about 107 deg., and was increasing every hour. Unconsciousness was complete, or nearly so. The pulse was very rapid, and the respirations also, though no accurate note of these symptoms was preserved. There was no visible swelling or redness of any part.

It was at once decided to place the patient in a cold bath. Unfortunately, the house, a large country residence, had been built before bath-rooms were in fashion, and a row of morning tubs could only be offered. Pontefract was some miles away, and time was pressing. An express was sent off for a full length bath, and meanwhile an active housemaid discovered an old-fashioned slipper-bath, or rather boot-bath, in a garret. This was brought to the bedside, and a row of servants was placed upon the staircase to pass pails of hot and cold water. The bath was filled with water at 80 deg.; and the patient, a heavy man, was lifted from bed and his legs with difficulty thrust into the foot of the boot, so that he rested in a sitting posture upon a shelf within the heel. The rim of the bath reached the patient's waist. Regardless of floors and ceilings, very cold water was now poured upon the patient's head, who was held up in the bath, and whose temperature was now exceeding 107 deg. The difficulties of bathing and attention to the temperature of the water diverted the skilled observers from the patient, except so far as observation of the pulse was concerned. In five or six minutes, however, it was seen that he was quite conscious, and he had repeatedly expressed the intense relief afforded to him by the bath. In ten minutes, he was joking with his friends, and enjoying himself thoroughly. The water in the bath was so continuously heated by the body of the patient, that it was with difficulty lowered to 70 deg. and to 60 deg. by constant bailing out. With the recovery of the patient's consciousness, the use of the thermometer in the mouth became possible, and it was found that the upward movement of the temperature had been arrested. In this bath, cold affusions being poured continuously over the head and shoulders, the patient remained for forty-five minutes, when the thermometer had fallen slowly to 101.5 deg. He was still very comfortable and had no chill. He was now removed to bed, placed in a warm dry blanket, and a bottle put to his feet. His aspect and manner had for some time been perfectly natural, and his pulse and respirations were scarcely excessive. During the few hours which followed the bath, the temperature slowly fell to the normal. From this time forward, recovery was steady, and may have been aided by a few liberal doses of quinine, given with a view of preventing any renewal of the fever. It is but fair to add that the efforts of the medical men were admirably seconded by a nurse from the Bradford Institution, upon whom much necessarily devolved, and who carefully watched and recorded the temperaturess throughout.—*British Med. Journal.*

DEODORIZED IODOFORM.—Dissolve in ether and apply to the diseased parts. On evaporation an odorless coating of iodoform is left.—*L'Union Medicale.*

Surgery.

CUTANEOUS MANIFESTATIONS OF SCROFULA—GENERAL CHARACTER OF SCROFULIDES.

BY M. HARDY.

The word Scrofulide is a new term which was almost simultaneously employed by M. Bazin and myself to designate the affections of the skin dependent upon scrofula. But, whilst I reserve the name of scrofulides wholly for cutaneous lesions which have their point of departure in the scrofulous diathesis, M. Bazin ranges under this denomination certain manifestations of the skin which are also met with apart from scrofula, but on which this general disease impresses a peculiar character. (After a long argument addressed against this manner of classification by M. Bazin, Prof. Hardy goes on to say) The scrofulides, as I understand them, have only been veritably known in these latter days; they have only been thoroughly described by M. Bazin and by myself, in the lectures which we have delivered at the Hopital Saint Louis. They had previously been confounded with other ulcerations of the skin. In the middle ages, the majority of cutaneous diseases to which the name of lepra was given were certainly no other than scrofulides. Later, when Willan let in the light upon affections of the skin he confounded them with lupus, eczema, impetigo, &c. Besides, he misunderstood the nature of scrofulides, and that which he described in his order of dartrous diseases under the name of *ecthyomenes* is, in our point of view, merely the cutaneous manifestation of scrofula. To-day we are thoroughly versed in these diseases and freely recognize not only their general characters, but also their different varieties. From a general point of view, the scrofulides present peculiarities which distinguish them from other affections of the skin. In the first place, most frequently they give rise to no kind of pain; at the most they produce a slight sensation of pruritus or itching in the exanthematous scrofulide.

They may appear upon any region of the body, but their preferential site is the face, the neck, and the buttocks. They are, moreover, remarkable for their perfectly defined circumscribed borders, and this character alone suffices to differentiate them from other eruptions and especially from the dartrous diseases. Their colouration also presents something special. It consists in a violet, vinous tint, which differs essentially from pure inflammatory redness, and from the yellowish-brown colouration of syphilis. Scrofulides are often accompanied by ulcerations, and these latter also have a peculiar diagnostic character. Their edges are, in fact, thin and undermined, and on raising them with a probe it is found that the extent of the sore is sensibly greater than would have been supposed from simple inspection. The base of these ulcerations is grayish, sanious, similar to the washed cuticle; sometimes, however, red and granulating. The secretion which it forms consists in a badly formed, serous, and rather abundant pus, which by desiccating gives rise to crusts. These latter too possess a special aspect. Whilst in syphilis they are of a pronounced green colour, very hard, and very adherent, the crusts of scrofula are, in general, rather soft, little resistant, and of an ill-defined colour: grey, clear yellow, or white. Sometimes, however, they are black, but this tint is simply due to an admixture with blood and pus. The skin over the regions occupied by scrofulides is in general the seat of considerable swelling. Thus it happens that you will very frequently find, beneath these eruptions, a swelling of the subcutaneous cellular tissue which notably exaggerates the size of the part on which the scrofulide is developed. On the surface the swellings sometimes present such characters that certain physicians, unskilled in skin diseases, deceived by this red, œdematous appearance, have described it as a special affection under the name of chronic erysipelas. But this is an egregious error, for erysipelas is an essentially acute disease, and one which cannot be mistaken. Dermatologists have given a special name to this form of scrofula, no matter what may have been the form of the elementary lesion—squamous, pustular, papular, or abscess—by which it may have first appeared. They have called it *lupus hypertrophicus*. One very remarkable thing is that this hypertrophy of subcutaneous cellular tissue, this œdema, this so marked tumefaction,

all give place, when the disease is passed, to a considerable atrophy : in such a region, the skin diminishes in thickness, it becomes retracted, and an altogether special phenomenon is seen to occur ; in fact, when the scrofulide has been developed in the vicinity of the natural apertures, these latter become obliterated and are reduced to an almost imperceptible orifice. The mouth, for example, is puckered up and appears, according to the vulgar but true description, like the anus of a hen. The opening of the nasal fossæ or the external auditory caval may in the same manner be reduced to a simple foramen admitting with difficulty of the passage of a probe. This process of contraction, and of atrophy, is an important characteristic of the scrofulides.

Lastly, in scrofula, even when cure of the ulceration has been obtained, there still remains a something which enables us to recognize positively the nature of the disease, and that is the cicatrix. Be it known, in fact, that the scrofulides are always deep, that they almost constantly invade a more or less considerable portion of the dermis, and that when they have disappeared, even although there have been no loss of substance, they invariably leave behind them an indelible imprint ; this character differentiates them from herpetic and dartrous affections like psoriasis or prurigo, after which the skin resumes its normal aspect. In scrofula, on the contrary, a cicatrix always exists, reticulated, uneven, and projecting, the thickness of which, moreover, is proportionate to the extent, and especially to the depth, of the ulceration. Sometimes very much sunken, very deep, but always uneven, it is in certain cases warty, reticulated, keloid-like, similar to those which deep burns leave behind them. This conformation of the cicatrices alone suffices, when it is met with in patients, to affirm that we have to do with a scrofulous individual, but most frequently the diagnosis is further aided by certain other concomitant phenomena. Thus we frequently observe in these persons either chronic otitis or ulcerations of the pharynx, besides cicatrices which point to ganglionic enlargements which have ended in suppuration, and lastly, we observe at other times, on the part of the articulations phenomena which are also proofs of the scrofulous diathesis. I shall say the same of the extremely long course of the disease, which rarely lasts less than one or two years, but which most frequently persists for ten, twenty, or thirty years, and sometimes even throughout the life of the individual.—*Hopital de la Charite.*

A SIMPLE METHOD OF REDUCING THE MORE FREQUENT FORMS OF DISLOCATION OF THE SHOULDER-JOINT.

BY W. S. OLIVER, M. D., SURGEON-MAJOR.

Reductions of dislocations of this joint, though generally easy to effect, are sometimes accompanied with such difficulty in its two most frequent varieties, viz., downwards and inwards and downwards, especially the former, as to need the administration of chloroform after extension, circumduction, etc., and all other methods of reduction have failed, and the patient has been subjected to much unnecessary suffering.

All this can be avoided, and the dislocation reduced in a few minutes without chloroform, and with little comparative pain to the patient, by simply seating him well back in a strong straight-backed chair, and gently lifting the affected arm upwards and backwards towards the spine of the scapula, and, until the humerus comes well in contact with the posterior part of the acromion process, no extension force being used more than is required to lift the weight of the arm.

This differs from a method over a century old (White's), in that the arm is not drawn vertically upwards, and extension and counter-extension have no act or part in the *modus operandi* of the operation, which is clearly explicable as follows.

1. The mere act of carrying the axis of the humerus in the direction specified paralyses, by relaxing and moving out of their line of action, all the most powerful of the muscles whose insertions are at some distance from the head of the bone, and are, therefore, engaged in retaining it in its false position. Also, it frees the neck of the bone from the constricting and retaining force exercised on it by the heads of the biceps and coraco-brachialis in the downward and forward displacements.

2. The humerus itself (chiefly through the intervention of its great tubercle) acting, first on the glenoid cavity, and next on the acromion process as fulcra, lifts its head, either over the projecting lower edge of the glenoid cavity in the downwards dislocation ; or, in the other instance, moves it around the point of the coracoid process and glenoid edge, and so enables it to be drawn instantly into its normal position by the powerful supra- and infra-spinati and teres minor muscles.—*British Medical Journal.*

TREATMENT OF DISSEVERED FINGERS WITH CARBOLIZED COLLODION.

Dr. Karl Franz, in the *Memorabilien*, says that he recently had a case in which a horse had bitten a coachman's finger, severing the third joint so that the portion of finger was barely hanging by the epidermis, one millimetre in width, and that he feared to touch it lest it should drop off. The wound was washed with cold water, and then carbolized water; the edges were brought in close apposition and thoroughly varnished over with a ten per cent. solution of carbolic acid in collodion. Afterward the entire finger was bound up in a pasteboard splint and cotton. The wound gave him no pain.

Twenty-four hours after this the end of the finger was examined. It was pale, and pricking with a pin was not felt. It remained in this condition twenty-four hours, and then I took off the bandage and washed the finger, and found that the parts had adhered very well. Upon pressure with a pin the end of the finger changed its colour from an already somewhat reddish to a pale hue, which, upon cessation of the pressure, again became reddened, as is observed in a healthy person. It was evident the circulation had been re-established, but sensation had only partially returned on the ninth day. By the twelfth day the finger was sensitive to the end of it, but motion was not yet possible. By the twenty-first day feeling had returned to all parts of the finger, and the man could use it a little, and strong pressure did not give him pain.

The length of time Dr. F. leaves the above dressing on is from four to eight days, if the patient remains satisfied.

Another case almost similar to the above is narrated, with a good result, in which the patient's little finger was cut off, with the exception of a shred of skin.

Also a case is reported where a miner had received a burn of the entire face, hands, and forearms, and both feet to the middle of the thighs. The burns were of the first and second degree. The carbolized collodion was tried on his face. The varnish caused the patient no pain at all. On the contrary, the evaporation of the ether cooled the burning sensation. The swelling of the face, which in burns of a similar character occurs to so great an extent that the victim can scarcely be recognized, was here very insignificant, and only continued a short time. The painting was repeated once, and the face was left uncovered. Over the other burns I placed lint saturated with ol. oliv., with aq. calcis and a ten per cent. solution of acid carbol., the result being very good.—*Am. Practitioner.*

A New Operation for Fracture of the Patella.—In a case of transverse fracture of the patella, Mr. Lister cut down on the fragments, opening the knee-joint, cleansed the surfaces of the fragments, and, having established an independent drain of horsehair for the knee-joint, drilled the two portions of the patella and tied the fragments together with silver wire, and then closed the wound, which was also drained with horsehair.

This operation was performed six weeks ago; the wound; as exposed to-day, was seen to be completely healed, the ends of the silver wire projecting through the scar. The highest temperature that had occurred was 100 deg. Fahr. on the morning after the operation. There has been no disturbance, constitutional or local, and both the wounds healed in about a fortnight.

The limb will be kept at rest for another fortnight, when, if union have taken place, the wires will be withdrawn.

Removal of Tumour from the Larynx.—The patient was admitted suffering from a tumour of the size of a hazel-nut, apparently attached to the anterior part of the vocal cords.

A fortnight ago, Mr. Lister operated, dividing the cricoid cartilage and upper three rings of the trachea, and was thus enabled to see clearly the vocal cords from below, and found that they were both affected from end to end. After putting a tightly fitting tube into the trachea, to arrest hæmorrhage and enable the patient to breathe, he divided the thyroid cartilage in the median line, and clipped away the vocal cords, both true and false.

The wound is now for the most part healed, except at its lowest part, where a small communication with the trachea still exists; when this opening was closed, the man was able to cough and speak with a distinct but gruff voice.

LIGATURES FOR ARTERIES.

BY R. GARNER, F. R. C. S., STOKE-UPON-TRENT.

At several of our medical societies lately, tendon ligatures amongst other kinds have been alluded to; and, as it is probable that little is generally known respecting them, it may be excusable to give the following account.

The tendons of the stag, ox, or horse are available for procuring these ligatures; especial care, of course, being taken in the case of the last animal as to the cause of death. The best tendon for splitting easily and regularly is the flexor perforatus in its course below the heel (os calcis), giving, in the horse, ligatures more than a foot in length. They will be somewhat shorter if the ox-tendon be used; but, I think, finer ligatures may be obtained from this animal, the tendons of which are easily procured. A hundred ligatures may be got from one tendon.

The perforans tendon is long, and might be supposed well adapted for the purpose; but it is more compound in its formation, and, therefore, difficult to split. The tendon, before splitting, should be cleared of the surrounding cellular tissue, and the inner or front surface of the perforatus is best stripped off, as it is a cause of resistance in the splitting and of irregularity in the ligatures.

When split to the required thickness, the ligatures may be sorted and kept in proof spirit containing some carbolic acid. They are applied best in this moist state, simply rendered a little dryer by wiping; or they may be used dry, which they soon become when left exposed; they may also be twisted a little and stretched by pinning down at the ends. When they are used somewhat moist, but not too much so, as they are then slippery to handle, their advantages are: first, great strength; secondly, that a vessel may be tied with them in a knot as easy to form, and as little likely to slip, as with hemp or silk, the tendons being equally supple; and, thirdly, that they will, when cut close, certainly in a short time dissolve and disappear.

I have found that a medium sized ligature, placed on a suppurating surface, dissolves in seven or eight days; probably the knot requires a longer time. This may be thought too rapid a solution, but they have been applied, to my knowledge in half a score of cases, and two or three times to the main arteries, and have never been followed by hæmorrhage or other bad effects. So much I may honestly say; but, whether they are worthy of further attention, or whether silk, or hemp, or catgut—any one of three—is all that operators can desire, I leave to be decided.—*British Medical Journal.*

ON THE REGENERATIVE PROPERTIES OF THE PERIOSTEUM AND ITS PRACTICAL APPLICATION.—Von Langenbeck. (*Centralblatt fur Chirurgie* No. 22.)—When the periosteum of a bone has been removed, to a considerable extent it will be replaced by new periosteum, without necrosis of the bone occurring. If this new periosteum is deprived of its bone, the bone will also be replaced. This has been proven by experiments of Bernhard Heine

Experience teaches Langenbeck that this reproduced periosteum possesses great vitality; and that for plastic operations the integument, that has become adherent to the bone, when removed with its periosteum, is of great value.

The author relates the history of two cases in which, through accident, the skulls were injured so that large openings were left in the cranial cavities. In these cases, L. used the integuments of the scars, with its periosteum, to cover and close the openings, and obtained the best results. He also related the case of a person who had lost a portion of the hard palate through syphilitic ulcerations. By using the tissue of the scars left, he succeeded in a partial restoration of the bone, while he had failed by using portions of the regular muco-periosteal lining or integument from unaffected portions of the mouth. Gangrene of these cicatricial flaps only occurred in anæmic individuals that should have had a previous tonic treatment.—*Chicago Med. and Surg. Journal.*

An extraordinary meeting of the College of Physicians and Surgeons of the Province of Quebec was held in Quebec early in December, for the purpose of adopting an amendment which the Provincial Legislature will be asked to make in the Medical Act, compelling all Universities in this Province to give nine months' course of lectures in medicine.

Midwifery.

CHRONIC OVARITIS.

CLINICAL LECTURE, BY T. GAILLARD THOMAS, M.D.

Mrs. Josephine M., a native of Ireland, and twenty-nine years of age. She has been married six years, and has had one miscarriage (five years ago), but has never had a child at full term. This is a very striking case, and I would have you observe the history closely. She says that she has never been well since she has had the miscarriage, though previously enjoying excellent health, and that she suffers all the time from a severe pain in the left side, which runs down the limb as far as the knee. She also has pain in the back, leucorrhœa, and some dyspareunia, though this is not marked. Her menstrual periods occur regularly, but she suffers from the most intense pain for three days after the flow ceases. During the flow she has no unusual pain, and frequently feels better than at any other time; but before it comes on she has a feeling of nausea and of heaviness about the pelvis. About a year ago, while on a visit to Ireland, she consulted one of the most able gynecologists that I know of, either in Europe or America, Dr. Kidd, of Dublin, and he performed an operation for her.

The symptons are perfectly clear in this case: the persistent pain in the left iliac fossa, and the peculiar dysmenorrhœa, which is not really dysmenorrhœa at all, and ought to have some other name. The one which Priestly has given such cases, viz., *intermediate dysmenorrhœa*, is not strictly correct, but it serves to describe the condition. In one case which came under my care this intermediate dysmenorrhœa occurred on the fourteenth day after menstruation, and so regular was its recurrence that the patient always went to bed early upon that day in anticipation of its approach. In another case it always came upon the ninth day. In both instances it was due to the same cause as the present case of post-menstrual pain. The operation which Dr. Kidd performed was incision and dilatation of the cervix, and if it had been a case of obstructive dysmenorrhœa (as he, no doubt, thought it was) it would certainly have been cured by the operation, for the cervical canal is still widely dilated. Unfortunately, however, the patient has suffered just as much since as she did before it.

But I have not told you what is really the matter with our patient. On making an examination by conjoined manipulation, I found the uterus normal in size and position, and the cervix very much dilated, as I mentioned. On the right side of the organ I could detect nothing abnormal, but on the left side I distinctly felt the ovary, as large as an English walnut, and acutely sensitive to the touch. What is the matter with the patient? That ovary. She is suffering from chronic ovaritis, which has continued ever since she had the miscarriage five years ago. For some reason which I do not know, ovaritis is much more apt to follow an abortion than it is labour at full term. This is the condition of the ovary, and no operation, short of extirpation of the organ itself (which I do not recommend), will cure it. It is this which gives rise to all the neuralgia, the engorgement of the uterus and the leucorrhœa consequent upon it, the dyspareunia, the post-menstrual pain, and the nervousness of the patient, to which I have not before called your attention. It is always well at the end of a diagnosis to look back on the case and ask yourself the question whether it is really correct or not. As to the case before us, I know of nothing else than the condition spoken of which would produce just such symptoms. All the symptoms are fully accounted for on this supposition; and the evident presence of the enlarged and inflamed ovary, itself, leaves no room for doubt in the case. The feeling of nausea and undefined distress just before the menstrual flow, of which the patient complains, is entirely characteristic, and is due to the congestion of the ovary incident to the menstrual epoch. If the organ were in a healthy condition we should not be able to find it at al by conjoined manipulation; but it is so much enlarged that its presence is very plain, and so much distress is given the patient by pressure upon it, that I have no doubt that she could easily be thrown into hysterics by this means. By reflecting how uncomfortable one is made by a blow upon the testes, you can form some idea of her sensations when the unsound ovary is engorged with blood.

In a case like this never promise a cure, for in six months your patient may be no better than she was at the beginning of the treatment, and in that case she will be very apt to reflect rather severely upon you. I believe that Battey's operation has a brilliant future before it, but I would by no means think of resorting to it here, because the patient is not suffering nearly enough to justify us in adopting such an extreme measure. In another case which I have, however, I am thinking of trying it. Both ovaries are irremediably affected, and the patient is bed-ridden in consequence. I have already performed the operation once, and am quite willing to undertake it again. In this case I should advise that electricity be given a trial, and preferably in the form of the constant current, two or three times a week. One sponge electrode should be placed under the affected ovary, and the other on the abdomen above, and to the left of the symphysis pubis. In addition, whenever the patient feels the approach of a menstrual period she should immediately go to bed and remain there. As soon as the flow is over (the time when she suffers most), she should keep a large hot-water bag over the abdomen, and occasionally apply it to the spine also. I have not much confidence in medication in cases of this character; but there is one agent which I use a good deal, and which, in some instances, seems to act quite nicely, and that is the bromide of ammonium. She might take from ten to fifteen grains of this three times a day in some bitter infusion, before, during, and after the menstrual flow, and she ought also to keep her bowels somewhat relaxed at that time, so as to prevent the pressure of fecal matter in the rectum upon the ovary. She should abstain altogether from intercourse with her husband, and were she a patient in the higher walks of life I should recommend a change of air and the entertainments of travel. The latter means often proves of more service than any other in these cases.—*Med. and Surg. Reporter.*

Zoga reports a case of aneurismal varix between the left brachio-cephalic vein and the arch of the aorta, caused by an aneurism of the arch of the latter vessel adhering to the former.

SOME HINTS REGARDING UTERINE SUPPORTERS.

BY CLIFTON E. WING, M.D., BOSTON.

Dr. Wing is out again on the supporters, when used by competent hands. He writes pleasantly and well. Among other things, he says:

"The adjusting of a pessary which shall be worn for an indefinite time, until its objects have been attained, is not always a matter to be accomplished by once or twice seeing the patient, although some simpler cases require but little more attention, but often a process which must extend over weeks and perhaps months, and which requires the closest attention on the part of the operator to avoid injuring instead of benefitting the woman.

"That this fact is not appreciated by the profession at large is evident from the number of patients sent to the specialist, who come expecting to have a supporter applied, leave the office in a few minutes, and have no further trouble about the matter. Occasionally this can be done, but such cases are exceptions to the rule.

"When a uterus has been out of its proper position for a length of time, the tissues and parts about it accommodate themselves to the new position it has taken.

"We all know how easily a recent uncomplicated dislocation of the shoulder or hip-joint can be reduced by proper manipulation, and how difficult may be the process of reduction when the dislocation has become of long standing, and the surrounding tissues have become habituated, so to speak, to the malposition.

"It is exactly the same with a uterine displacement. When the womb has been but recently thrown out of position, it can often be easily replaced and retained where it belongs. When the displacement is of long standing, frequently the process of reduction is a very difficult matter. Hence the importance of early recognizing and treating these conditions. A complete replacement, in many instances which present, cannot be accomplished at once; the parts can only be carried back where they belong *gradually*. Oftentimes continued pressure must be used to do this, and must be kept up afterward to hold them in place until they

acquire, once more, the tendency to stay in the normal position.

"While with the surgery of the external parts of the body—as in a case of club-foot, for instance—for the gradual bringing into position of the tissues, appliances having screws, pulleys, and springs can be brought into use, and thus the steady pressure which is needed be readily applied and regulated, with a uterine displacement such appliances are impracticable, and we are obliged to depend upon the skill and ingenuity of the surgeon in applying pessaries of different sizes and shapes, to keep up the pressure which is needed, and at the same time avoid serious injury to the tender tissues.

"In many cases of displacement of the womb, the vagina, from being kept in an abnormal position, acquires a form very different from its normal one, and when the uterus is being carried back where it belongs the vagina, "*pari passu*," gradually regains its natural shape. So it follows that a pessary which will to-day fit the parts perfectly, and perform its duty of supporting the womb, will perhaps be found, on examination a fortnight, more or less, hence, to fail in keeping the womb up as it should, and now will not fit the vagina at all. Before the final pessary (the one which the patient can wear indefinitely) is reached, she may have to wear quite a number of different ones, each of which will do nicely for a time, and then be useless, or worse than useless; for a badly-fitting instrument is always likely to do harm. Thus, for the successful treatment of even a single case, the physician may need quite a full asortment of pessaries, and moreover, he must know from experience when and how to change them."—*Louisville Med. News.*

DEATHS FROM ANÆSTHETICS.—Four more deaths are reported from anæsthetics. In one case in which ether and nitrous oxide were used, death appears to have been caused by vomited matters entering the trachea. In a second case where ether was used, death rapidly followed vomiting. In the third case where chloroform was followed by ether, and in a fourth where ether alone was used, vomiting is not mentioned as having occurred.

Original Communications.

To the Corresponding Editor of the CANADIAN JOURNAL OF MEDICAL SCIENCE.

CASES OF PUERPERAL CONVULSIONS.

BY JAMES ROSS, M.D., TORONTO.

DEAR SIR,—In your *Journal* for October, 1877, you have given a synopsis of my obstetrical record for the past twenty-five years, and have, with a few slight exceptions, given it very correctly; and, to render it more intelligible, I have thought that it would be well to make a few explanatory remarks about some of the most interesting cases, which may be instructive and useful to your younger readers. I shall begin with eclampsia, and endeavour to give a succinct account of the five cases there mentioned.

Eclampsia or puerperal convulsions is one of the most alarming complications of labour that the obstetrician can meet with, and is fraught with considerable danger to the parturient woman; but in the cases above referred to I was fortunate enough to save both mother and child. During the past month another very severe case has been under my care, with the same satisfactory result.

FIRST CASE.—I was sent for on the 23rd of March, 1857, to attend Mrs. L—— during her confinement. She was twenty-nine years of age, primipara, full term, residing three miles from the city, and had been in labour for nearly forty-eight hours when I arrived. She was strong and plethoric, and had no œdema of the extremities. The os uteri was considerably dilated, but presented a firm margin; the expulsive efforts were very active. The child presented occiput left anterior, and the bones of the head were well ossified. I had not been long at the bedside before I noticed a twitching of the muscles of the face, soon followed by a fearful convulsion. I immediately opened a vein in both arms, applied the forceps, and quickly delivered. She remained unconscious for some time, but did not show signs of permanent lesion of the brain; breathed easily, and swallowed water when put into her mouth. About twenty minutes after delivery she appeared restless, upon which I gave a teaspoonful of laudanum, and shortly after she fell into a

tranquil sleep. Convalescence was rapid; and since then she has become the mother of four or five children without any recurrence of convulsions.

Second Case.—December 19th, 1859 Mrs. K———, aged twenty-two years, city, second labour, had been ill for thirty hours under the care of a midwife, and I was summoned after the convulsions had commenced. She was quite unconscious, and breathing with difficulty, but soon became quiet. She was œdematous, her labour had been strong, the os uteri was fully dilated, and the child's head—which presented occiput left anterior—was impacted in the pelvis. Consciousness returned, and she conversed with me, but felt exhausted. Countenance pale, pulse quick and soft, or compressible. Soon she was seized with a second fit, which lasted for ten minutes, followed for a short time by unconsciousness. At this juncture I applied the forceps and delivered, and then administered half a grain of morph. sulph. Before its effect had time to become manifest, she was seized with a third fit, seemingly more prolonged than the preceding one. At this stage my friend Dr. H. H. Wright, for whom I had sent, arrived, and we decided to give some revulsive and depletant. Accordingly four drops of croton oil were given. I saw her next morning; the convulsions had not returned, bowels had moved freely, and she was conscious. The next day I ordered her a few doses of pulv. jalap co., one to be taken occasionally, in order to remove the œdema.

She convalesced, and was able to nurse her child much better than I had anticipated. I attended her two years after with her next child. She was not œdematous, and did very well.

At this point I may be pardoned if I refer to the intolerable interference of a priest, called Father Rooney, who, either through ignorance or an authoritative presumption, entered the sick chamber of this woman when I was about to apply the forceps, and in a commanding voice ordered me to baptize the child *in utero* before it was destroyed by the instruments. This I promptly refused to do, as I have repeatedly done, and will always do. I did not know whether the child was living or dead, nor did I take time to ascertain; my duty being, above all things, to save the mother if possible. This practice of baptizing a child before it has breathed, and before it has been brought into the world, is, I consider, a monstrous outrage, both upon the parturient woman and upon common sense.

Third Case.—I was sent for on September 12th, 1869, to attend Mrs. L———, city, aged 22 years, primipara, full term. I saw her early in her labour. Her feet and legs were œdematous, the child presented occiput left anterior, the os dilated slowly, and the pains throughout were feeble. While waiting for nature to take her course, a convulsion came on. I immediately sent for the forceps—which I had neglected to take with me; but before they arrived a second fit occurred, the patient having become conscious in the interval. I immediately delivered her on the arrival of the instruments, and as soon as she was able to swallow I gave her morph. sulph. ½ grain and potas. bromide ʒi She soon became calm, and fell into a tranquil sleep which lasted for several hours. The convulsions did not return, and she rapidly convalesced. I have attended her four or five times since without any trouble.

Fourth Case.—June 15th, 1875. Mrs. H———, aged 22, city, primipara, pale and œdematous, ill for six hours, presentation occiput left anterior, os considerably dilated, soft and patulous. The pains were active. I had not been long in attendance when she was seized with convulsions. Before I could apply the forceps she was seized with a second fit, and as soon as it had passed off I delivered. She was quite unconscious from the commencement of the first fit, and now appeared much exhausted. Shortly after delivery a third fit occurred. Dr. H. H. Wright, for whom I had sent, now arrived, and we gave her a third of a grain of morphia, hypodermically; but the fits recurred at short intervals until the total amounted to nine, the patient remaining unconscious throughout. Four hours after the first dose of morphia I gave her another, when she fell into a comfortable sleep which lasted for six or eight hours. She became conscious soon after, and was able to take nourishment. I ordered sulphate of magnesia, to be administered in purgative doses.

The bowels were moved, in due course, very freely, and convalescence was rapid. I attended her in her second labour which was quite natural.

Fifth Case.—This occurred August 12th, 1876, at Scarboro', twelve miles out of the city. Mrs. G———, aged 36 years, had had several children without any unusual trouble. She was œdematous, and had been confined, at 5 a.m., of a premature and dead child. Shortly after, she had a convulsion. Dr. Lapsley was called in, and remained with her all day. I saw her, in consultation with him, at 8 p.m. She had had nine or ten fits, having been unconscious for five hours, and now appeared to be very much prostrated. Her pulse was feeble, face pale, and her extremities were very much swollen. Shortly after I arrived she was again seized with a convulsion, from which I thought she could not rally, but after waiting for fifteen to twenty minutes I found her breathing—which was laboured—become more and more easy, and concluded that, as there was no evidence of permanent lesion of the brain, morphia would be most likely to afford relief. I suggested this treatment to Dr. L., and with his concurrence I put half a grain into the arm with the hypodermic needle. She soon fell into a calm sleep, and after the lapse of three hours without a fit having recurred, I left for home; directing, however, before my departure, that she must not be disturbed too soon, but be allowed, if she would, to slumber on for ten or twelve hours.

I visited her again three days after. She was conscious, but suffering from dyspnœa and cough, produced by œdema of the lungs. This was soon relieved by elevating the head of the bedstead ten or twelve inches, and acting freely upon the bowels. She subsequently made a good recovery.

Your modesty forbade the mention of another case which you attended, according to the entry in my record, while in charge of my practice during absence in the West. It was that of Mrs. Y——, city, and occurred in 1874. This case, also, terminated favourably to both mother and child. I have since attended the same patient, when her labour was quite natural.

Since the publishing of your tabulated analysis of my obstetrical record in October last, I have been called upon to attend another case. A Mrs. G———, who had been ill for about twenty-four hours before I saw her, was brought to child-bed for the first time on the 21st of October. She was a delicate woman, of a nervous temperament, and had, before my arrival, about 5 p.m., been put under the influence of chloroform by her two medical advisers, but without any practical result. Nine or ten severe fits had shaken her delicate frame; the last—from which she was just emerging upon my arrival—leaving her very weak. Unconsciousness had prevailed since the advent of the first fit. The os uteri was considerably dilated, and dilatable. The child presented occiput left anterior, and was low down in the pelvis. I administered a third of a grain of morphia, hypodermically, applied the forceps and delivered in about fifteen minutes. Sleep soon overtook her, and she remained quiet until midnight, when the convulsions suddenly returned, recurring at intervals until I again visited her at 9 a.m. next day. I again gave her a third of a grain of morphia, followed with the bromide of potassium in ʒss. doses as soon as she could swallow. I saw her in the evening, when she was still unconscious, but had been free from the fits since morning. She had taken ʒii of the bromide of potassium, combined with some milk. I ordered this to be continued. The following day I found her somewhat improved, though still unconscious. She had taken more nourishment, but struggled on about the same, between life and death, until the morning of the fourth day, when she became conscious. Her mental vigor was unimpared; and when reason had resumed its throne she expressed surprise to hear that she had been confined; and it quite repaid me for the anxiety her illness had caused to witness her joy when she discovered that her first baby was alive and well.

Convalescence rapidly ensued, and she is now able to nurse her child.

Many other particulars of minor importance might have been noted, but I trust sufficient has been mentioned in this humble account to make these few cases interesting and instructive to the junior practitioners of our noble profession. And, in conclusion, I hope that I have not trespassed too largely upon your valuable and limited space.

CASE OF MORPHŒA NIGRA.

BY J. E. GRAHAM, M.D., TORONTO.

Katy B——, æt. 12, one of a family of nine' all of whom are healthy, with this exception' There is no hereditary disease in the family. Her father, who is not a strong man, suffers from dyspepsia. She, herself, has always been healthy up to the appearance of the present disease, in fact, up to the middle of last week. The disease first made its appearance six years ago. It began as a small pimple on the lobe of the left ear, which became very red at times, and at times almost disappeared. From this point the disease extended very slowly until the whole of the lobe became involved. It is now completely covered by a somewhat slimy, dense integument of a yellowish-brown colour, and studded, especially at the edges, with yellow elevated spots, which appear to be enlarged sebaceous follicles. There appears to be neither elevation nor depression. There is a total want of sensation in the part. It may be pierced to a considerable extent by a needle without giving the slightest pain or sensation of any kind. There is a very slight erythematous halo around the spot.

In about a year after the ear became affected —a similar pimple made its appearance on the left cheek, from which the disease gradually extended, as in the ear. At the present time the spot on the cheek is almost as large as a twenty-five cent piece. It is circular, and is covered by a somewhat dense, slimy, dirty brown-coloured integument, also studded around the edges by yellow, elevated spots. The edges are somewhat elevated, and there is a slight depression in the centre. There is also here a slight erythematous halo in the centre. There exists the same want of sensation here as in the ear. The patient amuses herself by showing others how she can stick pins into it without hurting herself.

Both spots are increasing in size, more rapidly, her mother thinks, during the last six months than formerly. Her general health has been good up to last winter, when she had an attack of pneumonia, from which she quite recovered. For the last two or three weeks she has been in bad health; appetite, poor; and complains of lassitude. The child, at present, is thin and anæmic; complains of cough. On examination of the chest found some localized rales at the right apex; no other evidence of disease. She has been under no particular form of treatment. I might say here that a year and a-half ago she came to the Hospital, when I examined the spots, but did not then make out accurately the form of disease. The spots were not so large at that time.

Treatment: Ol. Morrhuæ with Sy. Ferri Iodid. Gave also a simple expectorant mixture.

Dec. 28th, 1877.—Patient has been suffering from febrile symptoms somewhat resembling typhoid. She has complained of severe pains in the abdomen, generally worse at night. To-day Dr. Zimmerman and I made a thorough examination of the chest and abdomen, and came to the conclusion that there was consolidation over a limited extent at the right apex. There appeared to be some swelling of the abdomen, together with a good deal of tenderness. It is possible that there may be enlargement of the mesenteric glands.

Jan. 2nd, 1878. — Patient has improved somewhat in general health, but is still very weak.

I have taken the liberty thus to give a detailed description of this case, partly on account of its rarity, and partly on account of the intimate relation it bears to that loathsome disease—leprosy.

According to Erasmus Wilson, "Patches of morphœa nigra were present in all the cases of elephantiasis which have come under our observation, but we have not seen it independently of that disease; sometimes the patches are round, and not more than a quarter of an inch in diameter, at other times they may be as large as a crown piece or the palm of the hand, in one instance the body was spotted all over with them. The tint of colour in morphœa nigra presents some variety. It is sometimes a yellowish-brown, sometimes brown, and sometimes almost black." He considers morphœa to be a faint trace of a worn-out disease, as an ember of a burnt-out fire; that the disease, leprosy, which was of so horrible a nature in Great Britain during the middle ages, still exists in these isolated cases of morphœa.

Dr. Bulkley, on the other hand, looks upon it as an independent disease. He is of opinion that the connection between it and leprosy is not borne out by clinical cases.

Neumann classifies it with elephantiasis, and, I should judge, considers it to be a part of the disease.

I might say that in this case there are a number of reddish spots on the face which have made their appearance during the last few months, and similar in appearance, her mother says, to those from which the morphœa spots originated. If the patient should live long enough it will be interesting to watch the further development of the disease.

As to the treatment of this disease, there has been no plan devised which has proved of much benefit. Like the true leprosy, which it so much resembles, it may be considered almost incurable. Cod-liver oil, potass. iodid., and arsenic, are the remedies which have been principally used.

Drs. Levy and Barduzzi lately published in the *Commentario Clinico di Pisa* an article on "Some little known therapeutic applications of the sulphate of copper." In the conclusion of that article they say: "We are, for the time being, content with having demonstrated that the sulphate of copper given to animals progressively from 0 gr. 05 to 1 gramme ($\frac{3}{4}$ grain to 15 grains) is easily tolerated, and that generally in this dose, far from occasioning any trouble, it greatly ameliorates the state of nutrition in these animals.

"That the sulphate of copper is a potent modificator of the nutritive functions by the increase of activity which it produces in the phenomena of nutritive exchange, and that, for this very reason, it is indicated in all conditions of the organism in which there are weakness, atony of nutrition, and impoverishment of the sanguinary mass; that, in these diseases, as also in the functional disturbances therefrom arising, medicine may derive from this remedy notable advantages, and results at least equal to those which may be obtained from other similar remedies.

"That the best and most simple means of administering the copper salt is to give it in pills at the commencement of or during a meal."—*Lyon Médical.*

Hospital Reports.

TORONTO GENERAL HOSPITAL.

Multiple Melanotic Sarcoma of the Skin.

UNDER THE CARE OF DR. AIKINS.

W. Chapman, age 64, native of Canada, married, father of a large family, farmer. Admitted to the Toronto General Hospital, Nov. 13th, 1877. Patient is of average height, thin, and shows signs of age. Has always been a healthy man; with this exception, about 25 years ago, suffered from rheumatism; thinks he may have had gonorrhœa at the time of latter disease; has also had pneumonia.

Some 25 years ago, through domestic trouble, took to hard drinking for about 6 months; has always been a great smoker.

Says his ancestry and children are healthy; no cancer in the family, except a cousin, who had cancer of breast.

About 30 years ago, first noticed under the integument a prominence of a black colour, the size of the head of a pin, about an inch to the left of the umbilicus; did not grow much till summer of 1876, when, during harvest, it became as large as a currant. Last fall, in consequence of being chafed whilst logging, it commenced to discharge blood and burst through the skin; tried burning with caustic, but without any good result, and it continued to increase in size. Last spring, it was strangulated by horse-hair, but afterwards, again commenced growing, uniting with three other adjoining tubercles, which appeared at this time, of a similar character, to form one large tumour on the surface of the body; present size (Nov. 20th), 4 in. long, 2 wide, and $1\frac{1}{2}$ thick, soft, and of the form of a cauliflower, without any discharge, but emitting a most offensive odour. At times, the patient experiences slight pain of a lancinating character from the tumour, but beyond this, and the uneasiness caused by the weight and liability to friction, it does not give much discomfort.

Six weeks ago, hard, colourless tubercles, some moveable, and others immoveable, varying in size from a pea to a cherry, formed under the integument all over the body, beginning on the

right thigh, possible number 200 ; those situated near superficial veins, of a pinkish colour, and some of these have burst through the skin. Patient does not think his general health has suffered, beyond experiencing gastric disturbances, caused by the offensive smell above mentioned.

Nov. 24th. The patient being placed under ether, Dr. Aikins removed the large tumour by means of the galvanic cautery, and he has since been progressing favourably without the aid of medicines.

Portions of the tumour have been submitted to microscopical examination, and found to possess the character of sarcoma, composed of round and spindle cells, in some parts, pigmented.

Tumour in the Triceps Brachialis.

Mary G., æt. 18, farm servant. Robust and healthy all her life. When about 9 years of age, first noticed a smooth hard lump, the size of a pea, behind and above the right elbow. It caused no inconvenience or pain. Has been steadily growing ever since. About 12 months ago, began to pain her, both locally, and also running down along inside of arm, and on both sides of little, and inside of ring fingers. Gradually increased in intensity, till about beginning of Nov., 1877, had to give up work. Dr. Richardson, at the T. G. H., removed a hard, white ovoid tumour, about $1\frac{1}{2}$ in. in length, and $\frac{1}{2}$ in. in its greatest diameter, embedded in the substance of the triceps cubiti muscle, above the olecranon process of the ulnar, and behind the internal condyle of right arm, the ulnar nerve passing over it from without inwards. On opening the tumour, by a longitudinal incision, it was found to be fibrous, with several isolated nodules of osseous matter in its centre.

Ventral Hernia.

Dec. 20th, 1877. Jas. O. B., while being examined as an out patient, in Toronto General Hospital, was found to possess a hernia about the size of a large hen's egg, $1\frac{1}{2}$ in. above and a little to the left side of the umbilicus. It could easily be reduced by taxis, applied directly backwards, but reappeared on pressure being removed. Occasions no pain or inconvenience. States, that in the year 1855, while manufacturing nitric acid, accidentally inhaled a small quantity of nitric oxide gas, which brought on violent fits of coughing, which lasted, on and off, for some days. During one of these, he felt something "give way," and the hernia appeared, which has lasted ever since.

Translations.

Medication by Salicylate of Soda. Doses to be prescribed in Acute or Subacute Articular Rheumatism, Gout, and Neuralgia.

Salicylate of Soda ought always to be preferred to salicylic acid, which was at first employed, and which presents the following inconveniences: it is not soluble in water, but only in alcohol and glycerine. It possesses an acrid taste, and irritant and caustic properties which are not devoid of danger to the mucous membrane of the alimentary tract. When salicylic acid is prescribed it should be dissolved by means of the bicarbonate of soda, the phosphate of soda, or Vichy water. The maximum doses of salicylic acid are 5 to 6 grammes (75-90 grains) per day; the quantity of bicarbonate of soda required to saturate a gramme (15 grains) of salicylic acid is about 1 gramme -11 ($16\frac{1}{2}$ grains). The salicylate of soda, on the other hand, is soluble in water in all proportions, and is free from all caustic taste.

The indispensable rules for its administration, or those which are of capital importance, are the following:

1st. *No therapeutic effect is obtained under* 4 *or* 5 *grammes* (60-75 grains). *This then is the minimum dose to be prescribed* (*per diem ?*) *In acute maladies* it (salicylate of soda) may be pushed to 10 or 12 grammes in the day (150-180 grains).

2nd. This amount having been given it is important not to suddenly cease the employment of the remedy, but to diminish it gradually when the symptoms which called for its administration have disappeared.

3rd. The salicylate of soda should be dissolved in a rather large quantity of water (*e.g.* 300 gr. for every 30 gr.) and it should be taken in tablespoonfuls at equal intervals during the day. Moreover, each spoonful of the solution should be given in a glass of pure or alcoholized water.

4th. It is convenient, when this substance is to be given for a long period, to cause it to be taken at a meal (salicylate of soda, 6 to 10 grammes; water, 300 gr. To be taken by tablespoonfuls). (Some practitioners employ

the following formula: Salicylate of Soda, 6-10 grammes; Syrup of Poppies, 150 grammes.)

Precautions to be taken.—In spite of its want of taste it sometimes happens that patients soon acquire a disgust for salicylate of soda; it may even produce attacks of nausea which compromise the success of the remedy. This is why vehicles which may still further increase the repugnance of the patient should be avoided. We should always therefore preferentially administer the remedy in Vichy or Seltzer water, or direct a spoonful of brandy to be taken after swallowing the medicine (G. See). Other physicians have recourse to cherry-laurel water, (Herard) and to black currant which is much employed at *l'Hotel Dieu*, and which gives very good results. Lastly, the salicylate of soda may be given in Limousin's medicated wafers, but in this case it is necessary to take great care to drink a certain quantity of water along with it, or water slightly alcoholized.

(*a.*) *Salicylate of Soda in Acute Articular Rheumatism.*—The dose should be from 8 to 10 grames (ʒii-ʒiiss) and sometimes 12 grammes (ʒiii) per day, continued up to the cessation of the pain and the joint effusion; then it may be diminished each day for about 8 days. This is the only means of avoiding relapses.

(*b.*) *In Subacute Articular Rheumatism.*—The dose may be weaker, but never less than 5 to 6 grammes (75 to 90 grains). In this form of rheumatism it is necessary to take the greatest precautions to enable the medicine to be borne, as its use will have to be continued for some time.

(*c.*) *In Acute Gout.*—The dose is the same as in acute articular rheumatism. M. Germain See recommends this formula: salicylate of soda 30 grammes (450 grains), water, 300 grammes (ʒix-ʒiii), make a solution of which 4 tablespoonful are to be taken a day. After cessation of the pain, diminish dose by one tablespoonful; continue the 3 tablespoonfuls for from 8 to 15 days, then reduce to two, &c.

(*d.*) *In Chronic Gout.*—M. G. See employs the same solution not exceeding 3 tablespoonfuls per day, until the engorgements have diminished and the pain has subsided, then reduces it to two tablespoonfuls per day for an indefinite time. *Relapses are thus almost certainly avoided.*

(*e.*) *In neuralgias* and the *lightning pains* of *ataxy* it is in comparatively reduced doses that we should commence the treatment, but they may be increased if the medicine do not make itself felt. Dr. Bouchard has seen very happy results from 10 grammes per day in ataxia.

In typhoid fever M. Gueneau de Mussy, seeking only for the antizymotic effects of the salicylate of soda, prescribes it in the dose of 2 to 3 grammes (30-45 grs.) dissolved in any drink that may be given. If, in this disease it be desired to use the salicylate of soda as an *antipyretic* it is necessary to give 8 to 10 grammes (ʒii to ʒiiss).

In diphtheria, salicylic acid has been employed in the dose of 10 centigrammes (1½ grain) every two hours internally and as a gargle, associated with mulberry syrup.

In children, as a general rule the dose should be one-half of that for the adult.

Contra-indications.—The chief contra-indication for salicylic preparations is the pathological condition of the kidneys so frequent in gout. The practitioner should therefore invariably examine the urine before prescribing the remedy.

Lastly, in the great phlegmasiæ, such as pneumonia, we should fear depression of the vital forces and collapse. Pulmonary Phthisis is also a contra-indication to its employment.—*Paris Médical.*

M. Ferdinand Dreyfous has communicated to *La France Médicale* a most elaborate article upon the subject of "Belladonna Exanthems," whereof we append the conclusions:—"1st. Belladonna, taken in small doses, may give rise to eruptions. 2nd. These eruptions, always apyretic, have, in general, a greater resemblance to scarlatina than to any other exanthem; but they may present secondary varieties, depending upon the region affected (the articular folds, for example), or upon individual circumstances (vapour bath or any other accidental cause superadded). Thus they may resemble erythema, or eczema, in certain points; and so may or may not be accompanied by pruritus. 3rd. They appear suddenly, and disappear without treatment, as soon as the belladonna is suspended.

From *La France Médicale.*

Superacute Pulmonary Tuberculosis.

BY M. DIEULAFOY.

A young girl eighteen years of age, fat and fresh, presenting all the appearances of health, entered my wards at the *Hôpital Temporaire* (St. Jean Ward) for some trifling indisposition; she complained of palpitation of the heart and pains in the left side of the chest, she experienced the sensation of a ball rising into the throat and choking her, she was not very regular, and her appetite was capricious; upon direct examination an intercostal neuralgia was found and a chloroanæmic bruit at the base of the heart, and in the large vessels; this was one of those mixed and ill-defined cases which partake at the same time of the characters of chlorosis and of hysteria, which are so frequent at this age.

For several days no new symptom made its appearance, then this young girl was seized, one Saturday after a bath, with shiverings and malaise which she attributed to a simple chill.

The next day, Sunday, same condition continued; but during Sunday night or Monday morning a violent oppression (dyspnœa) occurred, accompanied with cough; this oppression increased rapidly without allowing the patient a moment's rest.

The next morning, Monday, at the visiting-hour, we found the young girl in a state bordering upon asphyxia, the inspirations were short and rapid, the nails and lips were purple, the cough hard and jerky, the expectoration was catarrhal, the temperature reached 39 degr es (102·2 Fahr.) and the patient, affected with terrible anxiety, kept repeating that she was going to die.

What then did this very alarming condition, suddenly supervening in the midst of the appearances of health, portend? Clinical experience said asystolism, or perhaps obliteration of the pulmonary artery by thrombosis or embolism, but auscultation of the heart did not favour this view, and, besides, we had an elevation of temperature; fine diffused râles on both sides of the chest, accompanied by catarrhal expectoration and elevation of temperature, suggested the idea of a capillary bronchitis, but the almost lightning course of this capillary bronchitis was very unusual; lastly, for several reasons, there was no ground for thinking it an attack of asthma.

The treatment employed was the following: A venesection of 300 grammes, forty dry cups to the lower extremities, two blisters upon the chest, and a sedative draught of ether and cherry-laurel water.

The patient died the following night.

At the autopsy we found both lungs congested, and riddled from top to bottom with tubercular granulations, the majority extremely small; moreover, an old cavity of the size of a small nut existed in the apex of the left lung.

This observation presents two chief points for consideration:

1. The extreme benignity of a pulmonary phthisis, doubtless of old date, having determined locally a cavity in the apex of the left lung, and having so slightly impressed the general condition, that this young girl had not complained of any of the symptoms of pulmonary tuberculosis, and presented herself to us in the freshness and embonpoint of health.

2. The almost lightning course of the acute deposit of tubercular granulations, having invaded the whole of the pulmonary parenchyma, and killed the patient by asphyxia.

Andral had observed such a case, since he says somewhere "that the rapid and simultaneous development of a large quantity of tubercle in the lungs has occasionally been announced only by a progressively increasing dyspnœa, by a sort of acute asthma," (Andral, t. iv. page 359.) Graves has also mentioned it, since he speaks of *acute tuberculoris asphyxia.* (Graves, tome ii. page 127.)

From *L'Union Medicale.*

The Liquefaction of Oxygen.

At the *Académie des Sciences* on the 24th December, M. Raoul Pictet announced that on the 22nd of December at 8 o'clock in the evening he obtained the liquefaction of oxygen under a pressure of 320 atmosphere and at a temperature of 140 degrees below zero. There therefore now remain only hydrogen and nitrogen in the state of irreducible gases.

A New Revulsive.

BY DR. E. COUTIVIER.

Among ordinary remedies there are few which render so many services as revulsives. Sinapisms are of daily use; and flying blisters, although reserved for graver cases, have indications almost as numerous. But there are many circumstances in which the fugitive effect of a sinapism does not suffice, and in which we recoil from the employment of a blister. Our only other resources then are frictions with tartarated antimony or croton oil, and applications of thapsia. But these means present such serious inconveniences that we very often hesitate to recommend them. . . . . I have said nothing of Burgundy pitch, because its effects are almost *nil*. What is required to fulfil all indications is an agent whose effect will be at once rapid and prolonged, and which will provoke a sharp revulsion without occasioning pain or itching. Does this agent exist? Yesterday it did not exist, or at least its properties were scarcely suspected and it was not employed; but it certainly will be so in the future. This agent is pimento, or rather the extract of pimento, which M. Lardy has just made known. It combines, in fact, in the highest degree, the various conditions we have just enumerated. It acts with great rapidity, ten to thirty minutes, according to the point of application and the delicacy of the skin. Its action is manifested at first by a sensation of heat, a slight smarting and redness. These go on increasing for about three hours, then they remain stationary, and the revulsive action is so continued as long as may be desired. Nevertheless, after twenty or twenty-four hours in the adult, eight to ten in children, it is better to remove the plaster, and put another alongside of it if it be desirable to continue the revulsion. The heat and tingling produced are painless and free from itching. . . . . The extract of pimento has a beautiful red colour, identical with that of the dried fruit. Suitably incorporated in a plastic mass, and spread upon squares of paper, its application is very easy. It is unnecessary to warm it, for it adheres sufficiently to the skin; but it is well, on parts subject to movement, to fix it with a bandage just as a blister. Moreover, its action may be augmented or moderated according to the pressure. On removal, the heat and tingling may be immediately arrested by the application of a little starch.—*L'Union Médicale.*

From *L'Union Médicale.*

At the *Société de Chirurgie*, M. Guéniot read a second report relative to an observation of dystocia from vicious conformation of the pelvis, addressed by Dr. Cauvy (d'Apt.) It concerned a female assisted in her labour by a midwife who, in order to accelerate a very long labour, thought that she ought to administer a double dose of from 1½ to 2 grammes of ergot of rye. In spite of the repeated employment of the ergot the head still remained at the superior strait. A physician was called, who made three futile applications of the forceps.

When M. Cauvy reached the patient, he found the uterus in true tetanic contraction. The head was wedged into the superior strait, and presented in the form of a soft tumour in which osseous fragments were felt, resulting from fracture of the cranium, probably produced by the repeated applications of the forceps. M. Cauvy seizing the hairy scalp with his hand, made tractions which sufficed to extricate the head and the rest of the body. But the patient, being exhausted, died twenty-four hours after her delivery.

This woman had already gone through two previous labours, the first with presentation of the breech terminated spontaneously; the second with shoulder presentation was happily terminated by version. M. Cauvy believes that he may draw from this conclusions favourable to the employment of version in preference to the application of the forceps in cases of dystocia from pelvic narrowing. M. Gueniot does not participate in this opinion, and thinks that the forceps ought to be generally preferred. In conclusion he calls attention to the serious abuse that midwives and even some physicians make of the ergot of rye in difficult labours, owing oftenest to vicious conformation of the pelvis. The ergot in these cases renders the accouchement infinitely more difficult and more fatal. We cannot too strongly set ourselves against this baneful practice. M. Lucas Championnière directed attention to the efficacy, in serious cases of dystocia with head presentation, of the employment of the cepholotribe, which, attacking the base of the cranium through the mouth, enables us to obtain an extreme reducibility of the head which singularly favours the termination of the labour.

From *L'Union Médicale.*

On Forced Dilatation of the Sphincter Ani.

Considered specially in its application to the treatment of haemorrhoids.

BY F. MONOD.

We append the concluding remarks of the French reviewer of this inaugural thesis, Paris, 1877.

"Dilatation is not applicable to all cases without distinction. The author enumerates certain contra-indications; he insists upon hæmorrhage as the principal indication, and shows how the sufferer from hæmorrhoids who, from daily fluxes, has reached the last stage of hecticity, may be immediately restored by a simple and harmless operation; lastly, he reports eleven cases which serve him as *pieces justificatives.* The last pages are devoted to a summary study of some other applications of forced dilatation. Among the conclusions which terminate this excellent work I shall limit myself to transcribing the following:

3rd. Hæmorrhoids, once established, produce, by reflex action, a more or less violent contraction of the sphincters of the anus, painful or otherwise, and most frequently permanent.

4th. This contraction playing a chief part in the subsequent development of internal hæmorrhoids, and in the production of those accidents which follow their prolapse (strangulation, hæmorrhages, irreducibility), forced dilatation of the sphincter is presented as the most rational means of cure.

5th. This rational treatment is found to be at the same time the most simple, and the most harmless, of all those that have been proposed; it can scarcely be called an operation.

6th. It is formally indicated in all cases in which there occurs an abundant sanguinary loss.

8th. In view of thirty cases, already known, in which the forced dilatation, without giving rise to any serious accident, has invariably produced, either a radical cure, or a notable amelioration, there is no temerity in assuming that this excellent method will rapidly pass into the domain of everyday surgery, and will one day become the most generally applicable treatment for hæmorrhoids.—*L. Gustave Richelot.*

From *Le Progrès Médical.*

Diapedesis of Leucocytes in Man.

In a short, but very interesting memoir, Dr. Collin, Professor at Val-de-Grâce, studies the migration of leucocytes in man. He shows us how pathological anatomy and clinical experience have confirmed the researches of experimental physiology. It has long been known that when fine coloured particles, of vermillion, for example, are injected into the vascular system of animals, the leucocytes take possession of them, bury them in their protoplasm, and circulate, carrying with them these bright red granulations. We can then follow their course, and nothing is easier than to establish their passage through the walls of the vessels, and their extravasation into the surrounding connective tissue. Referring to a fact which he had previously advanced before the Society, M. Collin confirmed his previous observations: in ague-poisoning, and in the melanæmia which is a consequence of it, there exist pigmentary deposits in the various tissues, especially those which are in most intimate contact with the blood, the walls of the vessels. The deposits arise from the red globules of the blood which are destroyed in the splenic pulp. The leucocytes seize hold of these granulations, as may be seen by a microscopic examination of the blood of persons suffering from the fever. Now these are white globules loaded with the debris of red corpuscles, which go to form the pigmentary deposits in the walls of the vessels and in the substance of the different tissues. According to M. Collin, this migration of globules loaded with pigmentary corpuscles is very active; and in countries where malaria abounds, there sometimes appears, after only two or three attacks of fever, the yellow, earthy tint, due to the general pigmentation of the tissues, consequent upon the diapedesis of white globules charged with pigment granulations.

M. Collin has, at length, seen his view adopted by the majority of observers, and, since his communication to the *Académie des Sciences,* the works of Kelsch, of Cornil et Ranvier, and of Rouget have added the support of their authority to the demonstrations of the learned professor of Val-de-Grâce.

From *Gazette des Hopitaux.*

On Sudden Death in Typhoid Fever.

M. Dieulafoy is unwilling to accept either of the current theories as to the cause of sudden death in typhoid fever,—syncope from cerebral anæmia, or from fatty degeneration of the cardiac muscle. He propounds a view of his own "Relying, upon the one hand, on a number of observations where death occurred suddenly, apart from typhoid fever, under the influence of apparently trifling circumstances, such as the ingestion of ice water into the stomach, ammoniacal cauterization of the pharynx, &c.; and, upon the other hand, on the experiments of Brown-Sequard, of Goltz, and of Bernhein, which demonstrate the special excitability of the intestine and the mechanism of syncopes consecutive upon intestinal excitation, this author suggests that the syncope of typhoid fever is due to a reflex action having its point of departure in the diseased intestine. The excitation would be transmitted by the centripetal filaments of the great sympathetic to the cellules of the cord and medulla oblongata; at this point there would occur a transformation in the movement, which has followed, according to the case, somewhat different routes: sometimes the pneumogastric has been alone engaged and has given rise to syncopes which have been immediately mortal; sometimes the respiratory nerves have been at the same time involved, and have suddenly and precipitately determined the arrest of respiration and of the heart; lastly, in many cases other nerves of organic life have received a simultaneous excitation, a fact which explains the convulsions which have accompanied death.

From *Lo Sperimentale.*

Cure of Epilepsy.

In the opinion of Kunze we possess in curare a remedy by means of which we may cure cases of epilepsy of long standing. He employs a solution of 7 grains of curare in 75 minims of water to which he adds two drops of hydrochloric acid. At intervals of about a week he injects beneath the skin 8 drops of this solution, and in various cases in which convulsions had occurred for several years he obtained a complete cure after 8 or 10 injections.

Clinical Notes on Non-Embolic Infarcts of the Lungs.

A very long article on this subject appears in the November number of the *Rivista Clinica di Bologna*, from the pen of Prof. Ercole Galvagni, the conclusions of which we here subjoin:

1. That pleuritic exudations, by the compression which they exercise, sometimes produce infarcts in the lungs, which, not being of embolic origin, must be distinguished from infarcts of this latter kind.

2. That the production of these infarcts is probably indicated at first by sanguinolent sputa (hæmorrhagic period), and later on by rusty-coloured sputa (reactive period of pneumonitis); phenomena which, in a rational way, seem to be present or wanting according to the greater or smaller number of their infarcts, their largeness or smallness, and the concomitance or not of bronchial catarrh.

3. That some of these infarcts may undergo the process of caseation, so that we have here a new explanation, perhaps not general, but at all events not to be overlooked, of the too frequent occurrence of pulmonary phthisis after pleuritic exudations.

4. That from this last consideration, chiefly, the precept is confirmed of practising thoracentesis in due time, and with a suitable apparatus, either to prevent the formation of the infarcts, or to restore the lung, if they have already formed, as nearly as possible to the normal condition, which tends to facilitate the propitious process of involution of the same.

Pomade for Porrigo, TineaFavosa, Itch and Pediculi.

Petroleum, 2 parts; axungia, 4 parts; essential oil of lavender, a sufficiency. Mix. For porrigo, this pomade is softened in a water bath, and spread by means of a soft brush upon the hairy scalp previously shaved. Before making a fresh application of the pomade the old one should be removed with hot water and black soap. This preparation may also be employed in tinea favosa, itch, and pediculi pubis, corporis et. capitis.—*L'Union Medicale.*

From *Rivista Clinica di Bologna.*

Nitrite of Amyl.

We take the following from an account of the work of Dr. Jvan Ermesagem on Nitrite of Amyl, in the above journal. "The author divides into four classes the diseases in which the nitrite of amyl may be used: 1st. Syncope, coma characterized by weakness of cardiac innervation, anæmia, and the venous congestion of the cerebro-spinal centres. 2nd. Diseases characterized by vascular spasm. 3rd. Spasmodic affections of voluntary and involuntary muscles, diseases characterized by extreme elevation of temperature. The nitrite of amyl is chiefly administered by inhalation. Three drops on a handkerchief will avert threatening syncope from chloroform. In sea-sickness it will succeed heroically, according to the observation of Dr. Clapham (a hundred per cent). In hemicrania, two drops will suffice to cure; but it is especially in angina pectoris and in asthma that the best results are obtained. But its employment is contraindicated in old people, or in those presenting any vascular or cardiac lesion. it is also contra-indicated in puerperal plethora. Its use at all times demands much circumspection."

From *Gazette des Hopitaux.*

Purpura Iodica.

Dr. Tournier has observed a new variety of purpura which has hitherto escaped the observation of physicians. It is connected, as a pathogenic effect, with the ingestion of the iodide of potassium. . . . . This eruption appears in the form of miliary cutaneous stains, of a purple, blood-red tint, not disappearing under pressure with the finger. It had, for its preferential site, the legs, in the anterior tibial region; and once the purpura occupied the trunk. The eruption gives rise to no local or general symptoms, and disappears after a lapse of time varying from two to three weeks. . . . . As to the predisposing causes under the influence of which the iodic purpura is developed, they consist, not as might be supposed, in an impoverished, anæmic, debilitated state of the patients, or even in certain conditions of age, profession, external temperature, &c., but individual predisposition appears to be the only circumstance governing the œtiologic scene.

Formularies.

From Fothergill's Hand-book of Treatment.

One difficulty has always been felt, and it is this; even cod-liver oil is not always digested, and therefore something else was wanting. Dr. Balthazar Foster, of Birmingham, conceived the idea of utilizing Barnard's hint, and so combined ether with cod-liver oil. The increased flow of pancreatic juice so induced led to assimilation of the cod-liver oil, and thus anotner step forward was made in practical therapeutics. Another effect noticed by Dr. Foster was the return of a liking for fat under this plan of treatment, where previously a strong distaste to it had existed. One method is to give from ten to thirty drops of ether (sulphuric) in the dose of oil; or the ether may be given in water immediately before the oil. In private practice Dr. Foster prefers to give the following mixture:

Potassæ bicarb..... ʒ jss, ʒ ij
Acidi hydrocyan. dil..... M m. xij-xvj;
Spt. ætheris..... ʒ jss-ʒ iij;
Aq. ad..... ℥ viij. Misce.
℥ j ter in die sumat.

This method of adding to the usefulness of a course of cod-liver oil deserves wide and general attention.

Much difference of opinion exists as to the best forms of iron for common use. Some advocate iron in powder; others as haloid salts; while some prefer what are called the lighter preparations, as the ammonio-citrate and the potassio-tartrate. Personally, I prefer to commence in convalescence with the lighter preparations, and then go on to stronger forms. Much will depend on what it is desirable to combine with it. For instance,

Amm. carb..... ..... gr. v;
Ferri. am. cit..... gr. v;
Inf. quassiæ..... ℥ j

is a capital form in early convalescence, or in the treatment of amenorrhœa. After a time the following may be substituted for it with advan tage:

Cit. fer. et quiniæ..... gr. v;
Liq. strychniæ..... m. iv;
Inf. calumbæ..... ℥ j

This forms a beautiful tonic, effective, agreeable, and pleasing to the eye.

A common form, much used in both public and private practice, is the following :

Quin. sulph..... gr. j ;
Tinct. fer. perchlor..... m. x ;
Ac. hydrochlor. dil..... m. iij ;
Inf. quassiæ..... ʒ j ;

Often the iron is felt to be heating, and then a little sulphate of magnesia is of service. The following is a typical prescription :

Quin. sulph..... gr. j ;
Mag. sulph..... ℈ j ;
Liq. fer persulph..... m. v ;
Ac. sulph. dil..... m. v ;
Inf. quassiæ..... ʒ j ;

If this lies cold on the stomach, a few drops of the tincture of capsicum may be added.

For a permanent prescription, requiring to be continued for months, a pill is the best form. It admits of a large supply of material in a small space ; the nausea of the disagreeable taste daily for months is also avoided ; it does not affect the teeth ; and it can be taken after food without attracting the attention of others, often so trying to persons in weak health. The following is a very favourite form with me :

Ac. arsenic..... gr. j ;
Fer. sulph. exsic..... ℈ j ;
Pulv. capsici..... ʒ j ;
Pil. al. et myrrh..... q. s.
In pil. lx, div. 1 semel aut bis in die

Taken immediately after a meal, this is a digestive and tonic pill of the highest value.

One beautiful preparation of iron should not be forgotten. It is often well borne when other forms are not tolerated, and consists of the recent addition of the tincture of iron to acetate of ammonia :

Tinct. fer. perchlor..... m. x ;
Liq. am. acet..... ʒ j.

It is beautiful to the eye, palatable, and, in consequence of the decomposition produced, readily assimilated.—*Louisville Med. News.*

The Preservation of Leeches.

Put them into water to which has been added thirty drops per litre (quart) of a 3 per cent. solution of salicylic acid.

As parasiticides in Ringworm of the Scalp.

Dr. Tilbury Fox recommends the following formula :—

Sulphate of Copper ..... 20 grains.
Oil of Cade (ol. junip. pyrolig.) .. 3 drachms.
Sulphur ..... 3 drachms.
Ammonio-chloride of mercury .... 20 grains.
Lard ..... 1 ounce.

To be well mixed together.

Or, if the scalp be very irritable :

Oil of cade..... 3 drachms.
Sulphur ..... 3 drachms.
Tincture of Iodine..... 3 drachms.
Carbolic acid..... 20-40 grains.
Lard ..... 1 ounce.

Or this lotion which is cleaner than an unguent :

Perchloride of mercury..... 6 grains.
Tincture of Cantharides ..... ½ ounce.
Strong nitric acid ..... 1 drachm.
Distilled water to make..... 6 ounces.

The application of any of these must be thorough (preferably with a tooth brush) in order to produces slight suppuration of the follicles which contributes to the loosening of the diseased hairs at whose roots the fungus lies. The applications should be made night and morning. If non-irritating parasiticides be employed, Dr. Fox regards the simultaneous employment of epilation as a *sine qua non.*

A Syrup for Lupus (Thiry.)

Cod Liver Oil..... ʒ xij. ss.
Syrup of Bitter Orange Peel.... ʒ xij. ss.
Syrup of Quinine..... ʒ vij. ss.
Tannate of Iron..... grs. xv.
Essence of Anise and of Orange Flowers ..... q.s.

Make a mixture of which three tablespoonfuls are to be taken in the day by persons affected with lupus of the face. Repeated applications of the acid nitrate of mercury.—N. G.—*L'Union Medicale.*

For Herpes Zoster.

℞ Carbolic Acid..... *m* iv.
Gelatine ..... ʒ iij.
Glycerine ..... ʒ ii.
Aq ..... ʒ ii.

Boil to a jelly.

CROTON-CHLORAL FOR CILIARY NEURALGIA.—Friedinger.—(*Wiener Med. Wochenschrift*, No. 31, 1877.) Croton-chloral seems to have an almost specific influence on the sensory fibres of the fifth nerve, and it can be more surely relied upon to allay those fearful pains, which attend the violent inflammations of the iris and choroid, and are known as ciliary neuralgia. In all cases in which it was given for this neuralgia, it has exerted its anæsthetising effect without producing any collateral disturbance. This is the formula:

℞ Croton-chloral hydrate - 1 gramme
Spir. vin. rectif. - - - - 4 "
Aq. destill. - - - - - 150 "
Syr. aurant. cort. - - - 15 " M.

1 tablespoonful every two hours.

IODIZED COD LIVER OIL.

℞ Cod Liver Oil ....100 grammes.
Iodoform.....0 grammes 25 centigrammes.
Essence of Anise .....10 drops. M.

BOOK NOTICES.

A Case of Syphilitic Aphasia. By L. P. YANDELL, Jr., M. D. Reprinted from *Louisville News.*

Clinical Report on 3,873 eye patients treated at the New York Ophthalmic and Aural Institute during the year 1876. By Dr. ADOLPH ALT, M. C. P. & S., Ont., late Resident Assistant Surgeon. New York: Wm. Wood & Co., publishers, 27 Great Jones Street, 1877.

Contributions to the History of Medical Education, and Medical Institutions, in the United States, 1776-1876. Special Report prepared for the United States Bureau of Education. By N. S. DAVIS, A. M., M. D. Washington Government Printing Office, 1877.

APPOINTMENTS.

Dr. Alleyne Nicholson, Professor of Natural History in the University of St. Andrew's, has been appointed by the trustees of the British Museum to the Swiney Lectureship on Geology.

James W. Alway, of the Village of Grimsby, Esquire, M.D., to be an Associate Coroner in and for the County of Lincoln.

Miscellaneous.

OBITUARY.—Dr. E. R. Peaslee, of New York, died on January 21st.

VOMITING OF PREGNANCY.—Add thirty drops of tincture of iodine to 8 oz. of water, and given in tablespoonful doses every hour.—*Gaz. Med. di Roma.*

PICRATE OF AMMONIA, in grain doses, for the adult, is, according to Dr. J. W. Snider, of Fairland, Ill., speedily efficient in the treatment of intermittents.

USE OF CAPSICUM WITH QUINIA.—Prof. W. H. Thompson says that either capsicum, ginger, or other aromatics, combined with quinia, will diminish the amount required of the latter.

GRINDELIA ROBUSTA in ten drop doses of the tincture for a child two years of age, is claimed to be curative in cases of whooping cough, if repeated every two hours for three or four days.

LESIONS OF THE PANCREAS IN DIABETES.—The *Gazette des Hopitaux* states that recently M. Lancereaux laid before the *Académie de Médicine* some specimens, exhibiting extensive lesions of the pancreas in subjects of diabetes.

A CASE OF MALARIAL UNILATERAL HYPERIDROSIS (periodical), affecting the right upper extremity, is reported in the *St. Louis Clinical Record*, by Dr. O. V. Gaardner, of Serbin, Texas. Quinine was given, and recovery speedily followed.

MAXIMS OF SUCCESS.—1. Never look surprised at anything. 2. Before stating your opinion of a case, on your second visit ascertain whether your previous directions have been complied with. 3. Never ask the same question twice.—(*Dr. James Syme.*)

JOURNALISTIC.—Drs. W. S. Edgar and D. V. Dean have transferred the St. Louis Medical and Surgical Journal to Dr. Thos. F. Rumbold, who, as editor and proprietor, will, with Dr. Hiram Christopher as associate editor, in future conduct the journal.

Obituary.—Mr. J. F. Marson, who has for forty years been resident-surgeon at the Small Pox and Vaccination Hospital, Holloway, died last month. He had long been known as one of the highest authorities on the subject of vaccination and small-pox.

Death from a Needle.—A case is reported in which a patient died from hæmorrhage from a punctured wound in the aorta caused by a sewing needle which had been swallowed. Part of the needle was embedded in the œsophagus.

At the Pathological Society of London, Dr. Pearson Irvine lately showed a specimen of an aneurism in the cavity of an abscess in the liver. Dr. Douglas Powell showed a specimen of a small aneurism on the wall of an ulcer of the stomach. During the Session a discussion will take place on the diseases of the lymphatic system; leukæmia and lymphadenoma will be specially considered. The first discussion will take place in March.

Incompatibilities of Strychnia.—Bromides, iodides and chlorides of sodium or potassium produce a decided precipitation in solutions of strychnia. Dr. A. B. Lyons reports in the Detroit *Medical Journal* a case where serious poisoning was caused by the last dose of the following :—

℞ Strychnia ..... gr. ii.
Bromide of potassium .... ʒii.
Syrup, water .....aa ʒiv.
M.

The Medico-legal Investigation of Spermatozoa.—"Certain vegetable fibrillæ, particularly those of hemp, contain in their interior, certain ovoid granulations, slightly flattened in their longest diameter, and very refractive, which precisely resemble, in dimensions, aspect and form, the so-called head of the anamalcule. These granules become free as soon as the cellules are destroyed, and are dispersed in the liquid where the debris of the material is floating."

Longuet accordingly has searched for a colouring matter which by its elective action would permit one to distinguish between the animalculæ and the vegetable detritus; and, after numerous essays, he succeeded with ammoniacal carmine, such as the histologists use. The spermatozooids behave differently in the presence of the carmine, according as they are fresh, or old and dry. When recent they are very slightly changed; when old, they fix the colour with great intensity, more particularly in the large extremity, the so-called "tail" remaining uncoloured. This singular property suffices for their immediate recognition, even when they are surrounded by foreign elements which affect analogous forms.

The author advises as follows :

1. Take a small square of the material, supposed to be stained with semen, cut as nearly as possible from the centre of the stain.

2. Plunge the little square of material into a small quantity of distilled water, coloured by a fewdrops of an ammoniacal solution of carmine (5 or 6 drops to 5 grammes of water).

3. Leave this to macerate for 36 or 48 hours, and even more, for no inconvenience will result.

4. Separate the threads of the material very carefully, thread by thread and fibre by fibre.

5. Isolate each separate fibre.

6. Examine each separately by the microscope, with an enlargemeut of 500 diameters, each morsel being placed in a drop of ordinary glycerine.

In a preparation thus made, clusters of spermatozooids will be seen for the most part entire, "the head" coloured a light red, "the tail," without tint, disseminated among non-coloured vegetable fibrillæ of perfect refraction.

The advantage of this method lies in the fact that the results are most decisive according as the stain is old—that is, under the most unfavourable circumstances, for nothing is more easy than the isolation and recognition of spermatozooids in recent stains.—*Chicago Med. and Surg. Journal.*

The celebrated Dublin physician, Dr. Stokes, F.R.S., died on January 7th.

On the Surgical Treatment of Perityphlitic Abscess. By J. H. Pooley, M.D., Columbus, Ohio.

Canadians in England.—G. T. McKeough, M.B., Toronto, has passed the primary examination of the Royal College of Surgeons, England.

New Journals.—The Michigan *Medical News*, published semi-monthly at Detroit at $1 per annum. North Carolina *Medical Journal*, published monthly at Wilmington. Terms—$3 per annum.

Journalistic.—The first number of the Detroit *Lancet* is to hand. It is to be a monthly exponent of Rational Medicine and in company with the Michigan *Medical News*, a bi-monthly succeeds the Detroit *Medical Journal* which but a year ago succeeded the Detroit *Review of Medicine* and *The Peninsular Medical Journal.* "Now you see it and now you don't see it," appears to be the motto of the publishers of the Medical Journals in Detroit.

Feeding per Rectum.—An article appears in the *Deutsche Zeitschrift für Praktische Medicin* (No. 44, 1877), in which Dr. Kauffmann draws attention to the excellent results he has obtained from the plan of feeding the patients with pancreas and meat in cases of persistent and incurable intestinal obstruction. He states that he has had nine patients in the Kölner Bürger Hospital, seven of whom were suffering from cancer of the œsophagus, one from cancer of the pylorus, and one from chronic ulcer of the stomach. In all of these a cleansing enema was administered in the morning, followed by the introduction into the rectum of a mixture of a pound of finely-divided beef, and one-third of a pound of finely-minced pancreas, the whole being freed from fat and connective tissue. Half of this quantity was used at noon, and half at 6 p.m. The results were excellent; a solid well-formed, healthy evacuation was discharged every day. The patients were able to walk about, and lived for nine or more months. —*London Lancet.*

Elephantiasis Arabum Successfully Treated by Nerve Section.—Dr. T. G. Morton reports in the *Philadelphia Medical Times* for 19th January, 1878, a case of this kind. The patient, a negro, was admitted to the Pennsylvania Hospital by Dr. Morton in 1873, the disease being then of fourteen years' standing and well marked. The femoral artery was at that time ligated, and the operation was followed by marked improvement and apparent arrest of the the disease. The patient was re-admitted in November, 1877, and "the right leg was found to be double its size when last seen measuring twenty-one inches in circumference." * * * "Dr. Morton determined to attempt the artificial production of atrophy by section of the motor nerve of the limb. * * * The right sciatic nerve was laid bare, and one and one-half inches of its length exsected at the upper third of the thigh. No unpleasant symptoms have occurred since the operation. * * * On January 3rd of this year the limb measured 12½ inches in circumference, a reduction of some 8½ inches." There has been desquamation of the thick skin formerly covering the limb, and patches of skin $\frac{1}{16}$th of an inch thick have passed off, leaving a perfectly clean, soft and pliable skin beneath. The loss of sensibility is confined to the extreme anterior portion of the dorsum, all of the sole, and a strip of integument running directly up the posterior part of the leg to midway between the heel and popliteal space, which strip is two inches wide.

Mixed Narcosis.—During the past two or three weeks a novel mode of producing anæthesia called mixed narcosis (*gemischte narkose*) has been employed by Thiersch, of Leipzig, whereby insensibility to pain may be procured without the total abolition of consciousness. The credit of the discovery is ascribed to Professor Nussbaum, of Munich. Although suitable for all kinds of operations, it is especially serviceable for operations about the mouth

and jaws, in which blood is apt to flow into the trachea, or down the œsophagus into the stomach, and subsequently to cause vomiting. In some cases of removal of the upper jaw lately performed by Thiersch, the patient allowed the blood to accumulate for a while at the back of the pharynx, and then spat it completely out when asked to do so; and we are informed that in one instance the patient watched with evident interest the motion of the saw that was dividing his upper jaw-bone. A subcutaneous injection of morphia, from a quarter to half a grain, is given as soon as the patient is placed upon the operating table, and immediately afterwards the administration of chloroform is commenced. After inhalation for about five minutes the operation may usually be begun, but the chloroform must be renewed at intervals. The patients lose all sensibility to pain, but evidently retain a considerable degree of consciousness and control of voluntary movements. Within the last month mixed narcosis has been employed five times successfully, as far as the annihilation of pain is concerned, and without any bad effects.—*Lancet.*

Working for Nothing.—There are a very large number of people in this world, who have the idea that when a man belongs to one of the liberal professions, he ought to be satisfied with the glory of being a member of it, give his time, talents, and the result of that professional knowledge which it has cost him money and study to acquire, gratuitously, and not trouble himself about requiring any pecuniary reward for his services. There are deadheads hanging about every professional man, the clergyman, the lawyer, the journalist, the doctor, but the two latter come in for rather more than their fair share of the gratuitous business. Everybody knows that it costs a journalist nothing to write and publish gratuitous complimentary notices of every big pumpkin, or other curiosity to which his attention may be called, or to give "puffs" to every entertainment, charitable or otherwise, which occurs within a circuit of fifty miles of him; and everybody knows that it costs a doctor nothing to attend a patient—from whom he knows he will never receive a cent—for weeks, and probably have to furnish medicine besides, or to give up a lucrative practice for a few days, or weeks as the case may be, to rush to some distant point, because there is sickness and suffering there and the interests of humanity should cause him to go where his services were needed, although he knows quite well that he will not get paid for it. A case in point occurred lately in Charleston, S. C., when yellow fever was raging with great violence in Port Royal, and a cry for medical aid was made. The philanthropists of Charleston immediately made a demand on the doctors to "go to the front." But the doctors were not in a hurry to go, and wanted to know who would pay them. The philanthropists had no idea of paying and talked about "the laws of humanity," and all that sort of thing. But the doctors were firm; they said they would not go, and they didn't; and lest there should be any mistake about it they stated their views very clearly and plainly. They said, "We do not endorse the common "notion that the doctor is merely a public ser- "vant, and bound to make a martyr of himself, "whenever an opportunity offers, gratis. The "physician has to work for his daily bread like "other men, and his life is just as dear to him- "self and his family, and no one has a right to "demand that he shall abandon a lucrative prac- "tice and put his life in jeopardy from merely "sentimental motives." The argument of the doctors does not sound very philanthropic, but there is lots of sound common sense in it.—*Saturday Night.*

Births, Marriages, and Deaths.

BIRTH.

At Toronto, on Dec. 28th, the wife of Dr. Wagne of a son.

At 312 Jarvis Street, Toronto, on January 10th the wife of Dr. Adam H. Wright, of a daughter.

MARRIAGES.

On the 1st January, at St. John's Church, Bath, by the Rev. J. H. Nimmo, B.A., Alexander Kennedy, M.D., M.C.P.S., of Port Perry, eldest son of Rothwick Kennedy, M.D., F.R.C.P.S., to Ida, only daughter of Edward Howard, Esq., of Bath.

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TORONTO. MARCH, 1878.

Selections: Medicine.

ON THE TREATMENT OF PLEURITIC EFFUSION.*

BY T. CLIFFORD ALLBUTT, M.A., M.D.,
Physician to the General Infirmary, Leeds.

In the paper I am to read before this Section, I can scarcely hope to say much that is new, but I may hope to put the old before you strengthened by the results of a maturer experience. My own views of the treatment of pleuritic effusion have been laid repeatedly before the profession, and have contributed to the formation of a bolder habit of procedure in the matter. It is, therefore, neither needful nor possible in the time before me to enter into any full or minute discussion of the whole of our subject, but rather to set forth as pointedly as possible my views on the more difficult or disputed points. Under such circumstances, I must ask your forgiveness for any apparent abruptness or dogmatism.

It appears to me that our first duty is so to divide pleurisies into classes as to enable us to know more clearly what we have to deal with, and thus to avoid much of that controversy which gathers about ill-defined propositions as parasites gather about ill-nourished tissues. Although no hard lines can be drawn around them, yet the following divisions are fairly recognisable if we disregard transitional cases.

1. Dry pleurisies, in which the tubercular may be included.

2. Acute effusive pleurisies, in which the rheumatic are included.

3. Quiet effusive pleurisies in the serous stage.

4. Empyemata.

5. Pleuritic dropsy.

Of Class I, I have now nothing to say. The tubercular pleurisies are at times effusive, but the exigencies of individual cases are too various to be here considered.

Class II. Acute effusive pleurisies are those of an actively inflammatory kind, which make themselves sharply felt from the beginning by pyrexia and pain. The treatment of such cases seems to me to be clear. It is this. At the outset, that is, within twenty-four or forty-eight hours at farthest, leeches should be liberally applied to the parts, according to the forces of the patient, and a poultice applied to receive the bleeding. As soon as the bleeding has ceased, the affected side should be bound down by strapping after the manner best described by Dr. Roberts. Of medicines, I advise a mild saline purgative at the beginning, followed by the use of mercury and chalk combined with Dover's powder in fractional doses, or in weakly patients by the use of Dover's powder alone. Between these powders, I give a mixture containing acetate of potash and large doses of liquor ammoniæ acetatis. By this method, I obtain far better results than were wont to follow my expectant treatment of former years. The fibrinous effusion which issues in these cases almost always subsides when it has reached its height; and, if this height be the height of the spine of the scapula and the fourth rib, I am for this reason never in haste to interfere by operation so long as the patient breathes in tolerable comfort and the other lung is well at work. On the other

* Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Manchester, August, 1877.

hand, if the patient be uneasy, or if the entry of blood to the right heart be hindered, I do not hesitate to tap at once. The favourable aspect of operation in such cases is that suppurative conversion rarely occurs in these highly organized effusions, even if air enter the pleura. Once, in a case of impending death from double rheumatic pleurisy and pericarditis, all with effusion, we, being in haste, did not hesitate to plunge a bistoury into the fuller pleural cavity, and to allow the effusion to escape as it might, relying on the highly fibrinous quality of it which did not tend to suppuration. The wound soon closed, and the patient did well. Such effusions, being full of clots, are often difficult to remove by small cannulæ, or even to exhaust by aspiration; if opportunity permit, however, the proper plan is to use the aspirator with fine cannulæ, and to puncture the pleura repeatedly, drawing off what is to be had at each point. It is better to do this than to fumble in the first puncture, and the patient and his friends must be prepared beforehand for the probability of repeated punctures; I repeat, however, that operation is rarely needed in acute fibrinous pleurisy, and that its exudations, even if profuse, tend for the most to steady reabsorption. If, when all fever is past, such an effusion linger at its height or linger after a partial ebb, the use of a blister or repeated blisters certainly favours its removal. It is better to repeat the blisters than to allow the first or any one of them to proceed to full vesication. Sometimes, indeed, these measures may fail, and abiding dulness, silence, and immobility in the affected side will continue. Such a condition is often treated with indifference, and no doubt some time may elapse before such a side is completely restored to its normal state; nay, more, it is rare that the marks of such a pleurisy vanish as they came. More often they remain for years, or even for a lifetime. But, on the other hand, if the dulness and other signs be considerable, I am very unwilling to treat them with neglect, for such conditions may end in serious impairment of the lung, and even to chronic interstitial fibrosis of the lung. It is my practice, therefore, and I speak from some experience, as pleurisy is very common in Yorkshire, to put the patient under a course of mercury rather than allow this morbid state to remain. A combination of the bichloride of mercury with iodide of potassium and bark or iron may be given fearlessly for weeks, and will rarely fail to promote the removal of the remaining products of the inflammation and to restore health and activity to the affected organs. Such a course must needs be given most carefully, and the patient, on the conclusion of it, advised to take sea-air and tonic medicines. Routine drugging, pursued in ignorance of the natural course of disease, very rightly was displaced by expectant treatment; yet I fear that expectant treatment, having now helped us to learn more clearly the ways of disease, has in its turn sins of omission to answer for as great as or greater than the sins of commission laid at the door of the apothecary.

I will now pass on to Class III, quiet effusive pleurisy in the serous stage. Although the acuter pleurisies may run to large effusions and to effusions poor in fibrin, yet we more commonly see the larger and poorer effusions in cases where the pain has been trifling and the pyrexia moderate if more continuous. A daily evening rise of two degrees is easily overlooked by the physician and easily regarded by the patient as mere malaise. Such patients, with one moiety of the chest full or nearly full of water, are treated with tonics to relieve debility and anæmia, or are sent to watering-places to recruit their strength, until, perhaps, their actual state is revealed by accident. If such effusions come on slowly, as no doubt they often do, the sufferer may complain of but little more dyspnœa than is common to most weakly persons, and one patient who consulted me was able to lie on either side and to sleep on either side, although his left pleura was crammed with effusion. On the other hand, such effusions may come on with great rapidity and destroy life by the sudden dislocation of parts. Such cases, however, are not likely to be misapprehended; as, although fever and pain may be slight or absent, the dyspnœa compels a minute examination of the chest. But, let me earnestly impress upon my brethren a warning which, sounded again and again, has not yet aroused the profession to a full sense of the

perilous state of those whose chests contain large effusions. Where the water floods the chest in a few days or hours, the alarm may be taken, it can scarcely be neglected; but those whose effusions have gathered more stealthily are in as great a danger if time pass and no precautions be taken. One terrible warning in my early life taught me this lesson, while it turned my heart to the search for help to these sufferers. When yet upon the threshold of my medical studies, I was standing on the terrace in front of Addenbrooke's Hospital waiting for a young girl who had descended from a market-cart and was walking, slowly it may be but firmly, towards the house. She had crossed the green, when suddenly a cry escaped her and she fell dead at my feet. The porter and myself raised her, and gave restoratives in vain. She was gone, and the cause of her premature and sudden end was the effusion of fluid into the left pleural cavity. Now, shocking as this was to one who saw it, it is by no means an uncommon accident. At least thrice in my experience at the Leeds Infirmary have patients thus fallen dead from the same cause, and some instances of the like have come before me in my private practice. Let him, then, who hesitates to tap the pleura remember that, before his next visit, his patient, seemingly so tranquil, may have passed into the deeper stillness of death. Whether the effusion, then, be rapid or be slow in its flood, if the cavity be full, operate without delay. This is, I believe, one of those golden rules to which there is no exception. If the effusion be below the capacity of the pleura, immediate action is less imperative. Speaking of myself alone, I have never seen death by syncope except from a full pleura, though I presume such a death is possible. It depends, no doubt, on a dislocation of the heart and great veins, such as to form clot, or directly to impede the filling of the auricle or auricles; and I believe such pressure is rarely exerted to any degree until the compression of the lung has reached its limit. Still, I shrink, even before a patient at his ease, from allowing the breadth of three fingers to stand between him and death. A sudden swelling of the tide might occur even in the night, and help be absent. Moreover, the continued pressure of such exudation by soddening injures the lung, or by extending adhesions favours the permanent imprisonment of this organ, or by its own deterioration drifts towards an empyema. Nevertheless, with a patient of good promise, with fairly full arteries and respirations under 30, and whose exudation reaches no higher than the scapular ridge behind and the third rib in front, I counsel delay, warning the patient against rising up suddenly, and instructing his attendant to call the doctor in case of more numerous breathing or a change of complexion. If the patient be able to take solids, I advise a dry diet, gentle saline purgatives such as Hunyadi water, and syrup of iodide of iron with digitalis. Mercury I withhold, save as an occasional alterative. I do not strap the chest, as I prefer to be able to apply repeated blisters, stopping short of vesication. These quiet effusions are, however, hard to move, and so often increase that one is not sorry to have to operate and thus to shorten the duration of the case. In my inmost heart, I believe it will be found better in the end to tap all cases where more than two pints of fluid are present, as the results of medicine alone in quiet effusions are very tedious and unsatisfactory. An operation upon the chest is, however, as yet too unfamiliar and too dreadful to the public to permit us to turn to it hastily, and in these cases there is the not inconsiderable risk of so setting up an empyema, a risk nearly absent in mere fibrinous effusions on the one hand, and in mere dropsies on the other. It can scarcely be doubted, however, that tapping of the pleura, as it becomes better known and the procedure more perfect, will be applied to those smaller effusions which persist in spite of a short course of nursing and medicine.

In now confining myself to the larger effusions, let me again repeat, formally and unmistakably, that physicians must admit that the medicinal treatment of the larger quiet effusions is, on the whole, a failure, and where it succeeds runs the risk of injury to the lung, of empyema, and even of sudden death. Not only so, but pleuritic effusions in the right cavity, by pressing upon the vena cava and twisting it upon the heart, are not uncommonly

attended by dropsy in the legs and elsewhere. On the other hand, my own experience of operation in large serous effusion is very favourable; and, if I confine myself to simple cases and early operation, my results have been excellent, and have converted a serious malady into a moderate indisposition. Over and over again, by this procedure is fluid removed in bulk from the chest by one operation needing no repetition, and rapid recovery is obtained.

In opposition to some writers, I find that the chances against reaccumulation are in cases of early operation very moderate and even small; and, unless pus be formed, a third operation is in my experience quite rare. Add to this, that an illness of three months is reduced to an illness of three weeks, and the merits of early operation are even more convincing. The longer, however, operation is deferred, the less confidently can the best results be hoped for, the more danger of formation of clots and of empyema, and the more the danger of injury to lung and constitution.

The aspirator, which is valuable in highly fibrinous effusion, is even undesirable in serous effusion. It is better to allow the lung to expand at its own pace, and not to draw off more fluid than the lung can at that time replace. Even a partial relief of this kind generally leads to absorption of the remnant, and does not lead to severe cough and albuminous expectoration. Nor do I like instruments with angles in them, which are liable to become clogged. A fine trocar and cannula, the latter attached to a long flexible tube, through the wall of which the trocar should be passed on the distal side of the shoulder, is the best instrument. The tube closes upon the trocar as it is withdrawn, and no air can pass beside or after it, if carefully managed and the trocar be two-edged. A bayonet-pointed trocar wounds the tube too much. The instrument should be well carbolized before insertion, the tube filled with carbolized water, and the end immersed in a basin of carbolized water. By raising or lowering the basin, the syphon action may be increased or diminished at will. It is as well to keep a spray in motion about the puncture until all be over and the orifice closed with antiseptic dressing.

Now, of this simple operation our Yorkshire experience is so large that I may permit myself to marvel at the fear or hesitation which it excites, even in the medical breast, and, moreover, to doubt the reality of those untoward consequences which are said at times to follow it. That, if the operation be long deferred, its success is less sure, needs no reiteration; that a person in whom syncope is imminent may not always avert that syncope by operation, especially if the fluid be aspirated rapidly, is possible; that a tendency to clot, or the establishment of clot, in the central blood-vessels, is always to be feared in long standing cases; that a patient honeycombed by disease may die coincidently with or even consequently upon the smallest operation is certain, but who is to be deterred by these events from taking the course of operation in a promising case?

In a paper like the present, we cannot discuss rare exceptions; we can only lay down general rules.

I will now pass on to Class IV—empyema. With empyema, operation of some kind is inevitable, and as, encysted empyemata apart, a pus containing pleura means a full pleura, and as again we have decided that all full pleuræ are to be tapped promptly, there can be no difficulty in the matter of diagnosis. The presence of œdema in the wall of the thorax, however, will generally tell when the contents are purulent. That an encysted empyema may dry up is possible; but, if it do, it leaves caseous matter behind which may become a source of general poisoning—tuberculous or other—or it may remain latent for years and finally cause death, as in the case of a patient who died lately under my observation. In his case, the necropsy showed that an encysted empyema of ten years' standing was the cause of death by perforation of lung, etc., although apparent complete recovery had taken place at the time of the original illness. If I have one conviction in medicine more urgent than another, it is this: if pus or other septic material be present in the body, we must not rest until it is removed. I, therefore, dislike and reprobate all temporizing with an empyema. Out with it, and provide against the chance of reaccumulation. We are advised by some persons to

draw off an empyema by repeated aspirations.* I have seen two successful cases, so-called, of this practice. One spat pus within a month of his recovery, and the other died of hectic. Twice I have seen pus spat up while the systematic aspirations were carried out. I would not trust any reputed recovery under this plan till the patient had been watched for years. My two objections, and these complete ones, to repeated aspiration are: 1. Aspiration does not prevent the formation of a pulmonary fistula; 2. It does not prevent absorption, but rather favours it. By the pressure of a full cavity, absorption is often prevented and fever absent; draw off some of the pus, you relieve pressure, and absorption begins. I put before you charts illustrative of this; from them, you will see that by complete drainage alone fever is averted, and by the presence of fever after operation for empyema I detect at once a defect in the operation or a defect in the nursing. By a free opening at the lowest point of the cavity and as far back as possible, the pus must be run out, and complete drainage secured. The whole must be done under the antiseptic method, and antiseptic dressing continued. I have rarely found injections of any value, and should only resort to them in case of very fetid retained material, and should then use them of the mildest and simplest kind. But this plan, it is said, means a three months' illness, and perhaps death by exhaustion. Be it so, and be it remembered that empyema taking its own course is a three years' illness, and death probably at the end of that. Nor can any sleight of hand make a huge internal abscess anything but a terrible infliction. I can only say that the miserable broken down creatures who seek shelter in a hospital are generally cured completely in twelve or fifteen weeks; and that in private practice I have never yet lost a reasonably favourable case. As the cavity contracts to small dimensions, the drainage tube must be shortened. If a pulmonary fistula have formed before the patient comes under treatment, a counter-opening must be made and the chest drained, as in other cases.

*I mean here aspirations as the chest refills. On the other hand, the more recent proposal to aspirate every other day, or at very short intervals, is, in my opinion, well deserving of careful trial.

Class V. Pleural dropsies will not detain us long. These being often dependent upon disease elsewhere, and, therefore, often double, puncture should be used only in case of urgency. Fortunately, in these cases operation is of the simplest kind. There is no fear whatever of pus-formation, and the water may be allowed to run through an unguarded trocar, as in the case of ascites. At the same time, if circumstances permit, it is well to form an antiseptic atmosphere around the opening.—*British Medical Journal.*

RECTAL ALIMENTATION.

BY AUSTIN FLINT, M.D.

* * * * * * * *

INDICATIONS FOR RECTAL ALIMENTATION.

In cases of disease seated in the œsophagus, at the cardiac orifice of the stomach and at the pylorus, involving sufficient obstruction to prevent adequate nutrition, it is a very obvious indication to nourish by the rectum. I can recall cases in my past experience in which, with our present knowledge of rectal alimentation, as there is reason to believe, life might thereby have been much prolonged and suffering alleviated. In a case of cancer of the œsophagus, occurring in the practice of Dr. Purple within the past year, suffering from a sense of hunger was removed, and probably death postponed, by nutritive injections. Recently, in a case treated by Dr. Varrick, of Jersey City, a stricture of the oesophagus occurred which was relieved by the use of bougies. Before this was accomplished, the patient, who was extremely feeble, would probably have died had he not been sustained by food introduced into the rectum. He was subsequently able to take very little aliment into the stomach, owing to an invincible anorexia probably connected with degeneration of the gastro-intestinal tubules, and, under these circumstances, life was apparently prolonged by a continuance of the nutritive injections.

As regards prolongation of life and recovery, of course, the success of rectal alimentation will depend greatly on the nature of the disease irrespective of the mechanical obstruction. In cases of carcinoma, the most frequent of the ob-

structive affections in these situations, recovery is not to be expected, and postponement of a fatal ending, for a greater or less period, is all that can be hoped for, beyond relief of the suffering incident to death by slow inanition. Such cases, it is evident, afford no criterion of the expectations and hopes which may be entertained when obstruction alone threatens life, and especially when the obstruction may be removed if only time can be gained.

In gastric ulcer, to sustain the patient wholly by the rectum, thereby securing for the stomach absolute rest, is not only fulfilling an important indication, but there is clinical proof that by this measure alone the disease is effectively treated. Twelve years ago I treated in this way a case in Bellevue Hospital, nourishing the patient exclusively by injections of the essence of beef and milk, repeated every four hours for three weeks. The treatment would have been continued longer but for the irritability of the rectum. However, at the end of that period the stomach tolerated food, and the patient recovered. Dr. Balthazar Foster has reported several cases in which complete rest of stomach, thus secured for a few days, was followed by speedy recovery. Other cases have been reported in medical journals, showing the success of the treatment.

The treatment is indicated in cases of hæmatemesis (gastrorrhagia), whether the hæmorrhage depend on gastric ulcer or not. The rationale is the complete functional rest of the stomach which the treatment secures.

On the principle that rest of the inflamed part is of primary importance in the treatment of all inflammatory affections, nourishment by the rectum is indicated in acute gastritis. In a case recently occurring in the practice of Dr. Leale, nothing was introduced into the stomach for ten days. The patient was nourished by injections alternately of beef essence, chicken broth and milk, repeated every two hours. No form of opiate was added to the injections. After the first day or two, no dejection occurred during the remainder of the time that the nutritive injections were continued. The symptoms of gastric inflammation, under this treatment, disappeared; and the patient was so well satisfied with his rectal diet, and so apprehensive of the return of his gastric distress, that it was difficult to persuade him to return to alimentation by the mouth. When he consented to the change, the stomach was found to tolerate food without inconvenience. This case was seen by Dr. Purple and by me in consultation. Quite recently a case of acute gastritis caused by alcoholic excesses, in my service at Bellevue Hospital, was treated by nutritive injections, which, with a blister to the epigastrium, constituted the whole treatment. The gastric symptoms speedily diminished, and after a few days the patient was able to ingest food without inconvenience.

Persistent irritability of the stomach and almost complete intolerance of food,—a purely functional affection, occurring chiefly in women and especially in early life,—is an extremely rebellious malady, with which every physician of much experience is familiar. There is ground for the opinion that in these cases securing complete temporary rest of the stomach will be found to be the most effective plan of treatment. Within the past year I have met with two instances in which it has proved successful. One of the cases was in the practice of Professor Lusk, and the other was a patient of the late Professor Crosby. In the latter case Leube's meat solution, as prepared by Frederick Hoffman, apothecary and chemist, of this city, was used; and in the former case the form of rectal diet employed by Leube, which will be noticed presently. Prof. Lusk's patient was nourished by the rectum for seventeen days. During this time there was no apparent loss in weight. Prof. Lusk states in a note kindly furnished, that during the greater part of this period "the stomach was unable to retain even a swallow of water, so that, in addition to the nutritive enemata, considerable quantities of water were introduced into the system by the bowel to allay thirst." He adds: "I have had a number of similar cases since, but in all the irritability of the bowel has proved an insurmountable obstacle to prolonged treatment." In a recent hospital case of typhoid fever there was exceptionally constipation, and this was associated with great gastric irritability. The patient, under these circumstances, was nourished for two weeks by the rectum. During this period convalescence

took place, and the patient was so well satisfied with the rectal alimentation that she was reluctant to begin to take food by the stomach.

Rectal alimentation is clearly indicated in the cases of invincible anorexia with progressive diminution of weight and strength, ending fatally from inanition, the cases occurring in persons of middle and advanced age, and the pathology, probably, involving degeneration of the gastro-intestinal tubules. I have not clinical data sufficient for forming an opinion in relation to the success of the measure in these cases. It is to be feared that the morbid conditions which underlie the inability to ingest food, and the defective ability to digest in the stomach and small intestine, will be found to prevent the digestion of aliment introduced into the rectum.

Finally, resource is to be had to rectal alimentation when, owing to blunted mental perceptions or coma, an adequate amount of food cannot be introduced into the stomach by voluntary deglutition. If alimentation by the rectum will suffice, it is an easier method, under the circumstances, than the introduction of food into the stomach without the voluntary co-operation of the patient. And the rectal method of nourishment, if sufficient, is to be preferred to its forcible administration through the œsophagus in spite of the patient's resistance.

RECTAL DIET.

What kinds of aliment are best suited to form a rectal diet, is an important point of inquiry. With reference to this inquiry, I can not pass by the physiological question, how is digestion in the large intestine effected? From the failure to procure from the mucous membrane of the colon and rectum a digestive juice, and from experiments on lower animals, physiologists have been led to doubt the ability of these portions of the alimentsry canal to perform the function of digestion. Yet, secreting glands analogous to those of Lieberkühn are found in considerable numbers in the large intestine, and it is not difficult to understand that they may take on a vicarious activity when the glands of the stomach and small intestine are not excited by the presence of ingesta. This supposition is not inconsistent with the absence of a digestive juice in the large intestine when digestion in the stomach and small intestine is not interrupted. Another supposition which I will venture to make, is that food introduced into the rectum excites secretion by the gastric and intestinal glands, and in the absence of ingesta in the stomach and small intestine, the fluids secreted by these glands pass into the large intestine in a sufficient quantity to effect digestion within the latter. Whatever may be the explanation, clinical experience fully establishes the fact that the digestion of animal broths, milk and eggs, takes place in the rectum without the addition of agents,—namely, pepsin and hydrochloric acid,—which are capable of affecting artificial digestion. This is not saying that these agents are not useful as conducive to digestion within the large intestine.

The articles of diet just named have generally been used in nourishing by the rectum. That they are adequate to the needs of assimilation and nutrition, is demonstrated by the cases which have been cited. Leube has proposed a form of rectal diet, called the "pancreatic meat emulsion," which is prepared as follows:—From five to ten ounces of meat are chopped very finely, and one-third of this weight of finely minced pancreas (of the pig or ox), free from fat, added. This mixture is then rubbed up in a mortar with five ounces of lukewarm water, being reduced to the consistency of thick soup. Leube's "meat solution" would seem to be not less appropriate as a diet for the rectum than for the stomach. This differs from his rectal food in having been exposed to the temperature of boiling water, in a Papin's digester, for over thirty hours, hydrochloric acid having been added, and afterwards nearly neutralized by the carbonate of potassa.*

* The formula for the meat solution is as follows:—Take 1,000 grammes of beef, free from fat and bone, put into an earthen or porcelain jar, and add 1,000 C. C. of water and 20 C. C. of pure hydrochloric acid. Place the jar in a Papin's digester, screw the cover tight, and boil from ten to fifteen hours, stirring occasionally during the first few hours. Then remove the contents of the jar to a mortar, and rub the mass until it has the appearance of an emulsion. Boil again for fifteen or twenty hours without raising the cover of the digester. Add pure potassium carbonate until the mass is nearly neutralized, then evaporate to a pulpy consistence. Vide American edition of Ziemssen's Cyclopædia, Vol. XII, note before table of contents. This article is prepared by F. Hoffman, 797 Sixth Avenue, New York City.

This form of diet was used in the case which I saw with the late Prof. Crosby.

Leube's paper on nourishment by the rectum contains a number of experiments on dogs, proving that his "pancreatic meat emulsion" disappears from the rectum and is assimilated. These experiments are open to the criticism that the "dickdarm" of the dog may not be the analogue of the large intestine of man. Clinical experience, however, amply sustains the application of the results of these experiments to the human body. Leube assumes, at the outset, that milk, eggs and meat broths, are unsuited for rectal alimentation. In this he is in error, as shown conclusively by clinical experience. He errs also, probably, in thinking that there is not sufficient proof of the competency of the large intestine to take any efficient part in the digestive process; in other words, that the digestion which takes place in this situation is wholly artificial. His studies, although useful, are one-sided, inasmuch as they have for their object chiefly to substantiate the claims of the "pancreatic meat emulsion," whieh he seems to think should exclude other forms of rectal diet. It is a rational supposition that what is true of digestion in the stomach and small intestine, is true also of digestion in the large intestine, namely, a varied diet is better than the persistent use of the same kind of food prepared in precisely the same way; in other words, the alternation of different kinds of food may be of importance. Reasoning by analogy, it is probable that the addition of agents which are found to promote the digestive process in the stomach, and which are capable of effecting digestion out of the body, may be advantageously added to the rectal diet. I refer especially to pepsin and the hydrochloric acid. Concerning these and other points relating to rectal diet, the results of further clinical experience are desirable. If some enthusiastic physician or medical student were to submit himself to a series of well devised, carefully conducted experiments, he might hope thereby to furnish valuable practical information bearing on this important topic.

Thus far, in the cases which I have had the opportunity of observing, the articles of diet employed have been the "meat solution," and the "pancreatic meat emulsion" of Leube, "Liebig's extract of meat," with milk, milk either alone or combined with egg, beef, mutton and chicken broths. These varieties have severally proved satisfactory, but it is desirable to determine more accurately than our prosent knowledge enables us to do, the combinations and variations which render rectal alimentation more effective, and also whether the range of rectal diet may not with advantage be extended. The basis of increased knowledge in these regards must be, not theoretical considerations, nor the results of experiments on inferior animals, but experimental observations, in health and disease, on the human subject.

PRACTICAL RULES IN RECTAL ALIMENTATION.

Practical rules based on our present knowlodge of rectal alimentation, will doubtless receive important additions and modifications from experimentation and further clinical experience. In the cases which have come under my observation, the nutritive injections have generally not been carried above the rectum. It is easy to introduce a flexible tube, and inject nutriment into the colon. From half a pint to a pint of milk was in this way frequently injected in a case which I saw many times with Dr. Linsly and Dr. Ellsworth Eliot, the patient being an aged man suffering from a complication of exhausting maladies, and either unable or unwilling to take by the mouth an adequate amount of food. These injections were retained, causing no inconvenience, and apparently contributing to alimentary support. It remains for clinical experience to determine whether this method has not decided advantages.

Introduced into the rectum, the quantity at each injection should not, as a rule, be large. From three to six ounces may be stated as the average quantity. The intervals between the injections should be from three to six hours. In the case seen with Dr. Leale, they were tolerated without inconvenience every two hours. If not well tolerated, a few drops of laudanum, or a drachm of the United States solution of morphia, may be added to each injection. This is not necessary in all cases.

It is a point to be settled by experience whether the addition of an opiate impairs the activity of digestion in the large intestine; in other words, whether opium has the effect here which it has upon stomach digestion. Prior to commencing rectal alimentation, the contents of the large intestine should be removed by simple enemas, and, if not contraindicated by the feebleness of the patient, an efficient laxative should be given by the mouth. The nutritive injections sometimes provoke fecal evacuations at first, owing to the contents of the large intestine not having been entirely discharged, and afterward they are retained, no evacuation taking place for days or weeks, without any uncomfortable sense of accumulation. The latter fact was strikingly illustrated in the case reported by Dr. Purple, and also that seen with Dr. Leale. As a substitute for drink, when the need for more liquid than that contained in the nutrititive injections is expressed by thirst, and when water or pieces of ice are to be withheld from the stomach, simple water may be injected, and sponging freely the surface of the body, is a means of the introduction of liquid. In Dr. Purple's case, thirst was relieved by this means. If alcoholics be indicated, they may be either added to the nutritive injections, or properly diluted and injected separately. Alcoholics administered by the rectum are not, perhaps, open to the moral objections sometimes made to their use *per orem*. The addition of a little brandy or whisky does not appear to impair the ability to retain the injections. If, however, it should seem to be otherwise, alcoholics, if indicated, may be introduced hypodermically.

It happens not infrequently that nutritive injections at first are not retained, and they are discontinued in consequence. If persisted in, however, they may, after a short time, be well tolerated. As Leube says, the rectum seems to acquire the ability to retain nourishmnet: On the other hand, the injections are first retained in some cases, but after a time the rectum becomes intolerant of them. When the latter happens, it is advisable to discontinue them for a day, and, after this brief period of rest, the ability to retain them may be regained.

It is certainly not necessary in all cases as advised by Foster and others, to wash out the rectum by a simple enema before each nutritive injection. So far as my experience goes, this requirement is the exception rather than the rule. I have at this time under observation a case of long protracted functional anorexia and vomiting with great prostration, in which for many weeks the alimentation has been, for the most part, rectal. In this case, for two weeks or longer, no dejection has occurred, without any inconvenience from constipation, nutritive enemata being almost invariably retained. I may add that in this case improvement has been slowly progressive, and for the past week enough food has been retained by the stomach to render rectal alimentation unnecessary. During this week free evacuations from the bowels have taken place.

The nutritive injection should be tepid, that is neither hot nor cold. Directly after their administration, firm pressure should be made, by means of a sponge or napkin, upon the anus until the desire for their expulsion passes away.

Evidence that the rectal diet is sufficient in quantity and suitable in kind, is afforded by the feelings of the patient. If the injections meet the requirements for alimentation, they are followed by a sensation of comfort, such as is experienced after a satisfactory meal ingested in the ordinary way. In the case reported by Dr. Purple, the patient described the effect of each injection as fully satisfying the desire for food, and conducive to pleasant sleep. It is a striking fact that in several of the cases which I have observed, the complete satisfaction derived from alimentation by the rectum, has produced, not merely indifference, but a disinclination toward stomach digestion.

In conclusion, if the cases and remarks submitted in this paper have contributed but little to our knowledge of rectal alimentation, I trust they may be of some service in directing attention to the importance of the subject.—*American Practitioner.*

Alfred Hudson, M.D., has succeeded the late Dr. Stokes as Physician in Ordinary to Her Majesty in Ireland.

Surgery.

ON ROTARY-LATERAL CURVATURE OF THE SPINE.

BY PROFESSOR LEWIS A. SAYRE.

Delivered at Bellevue Hospital, November 26th, 1877.

Reported by P. Brynberg Porter, M. D.

Gentlemen :—Before commencing the subject which I wish to bring specially before you to-day, I will show you the patient upon whom I performed what is known as *brisement force*, for anchylosis of the knee joint, just one week ago, and whom I have not seen since. The house surgeon informs me that, except immediately after the operation, it has not been necessary to give him a single dose of opium, on account of any pain, and that there has been no febrile reaction or inflammatory trouble whatever. About three weeks ago I made a little attempt to move the patella, and succeeded in gaining a small amount of motion, but not having the requisite time then to finish the operation, the limb was left undressed ; and in consequence of that very slight movement an acute constitutional fever set in, from which the patient did not recover for a fortnight, and which for ten days required very active treatment, and the constant application of ice to the inflamed joint. All this followed from simply neglecting to employ the proper after-treatment, upon which I lay so much stress. In the operation a week ago I used an infinitely greater amount of force ; yet because the joint was properly dressed afterward, there has not been, as you see, the slightest constitutional disturbance in consequence.

You will remember that at that time I succeeded, after a good deal of muscular exertion on my own part, in flexing the leg to less than a right angle, and then by working it backward and forward I broke up the adhesions in the most thorough manner and knocked off all the little projecting points which might be a source of irritation or stiffness in the future. Then the appropriate dressing was applied, and upon this dressing, you will remember that I told you in the most emphatic manner, the entire success of the operation depends. A bandage was applied from the very extremity of the limb, great care being taken to place cotton over all projecting points, and especially to put a large sponge or bunch of cotton in the popliteal space, in order to remove pressure from the flexor muscles; adhesive strips were adjusted, by which extension could be made ; and a small piece of sponge was placed over the femoral artery in its lower third, the bandage being carried over it with sufficient tightness to make partial compression of the vessel, and thus diminish the blood supply of the joint. This last manœuvre is carrying out the idea of the late Dr. David L. Rogers, who ligated the artery for inflammation of the joint; and Dr. Stephen Smith informs me that it was done before him by Dr. Onderdonk, though I have not met with any notice of the fact myself. You must beware of losing the limb by making this compression too great, for if the artery is too much occluded, of course you will have gangrene result. It is important in the after-treatment that constant extension should be kept up, and that the slightest motion should be prevented. In the present instance plaster-of-paris was used for the latter purpose, and it is the first time that I have employed it in this connection.

The house surgeon having now cut through and removed the plaster casing, we will take off the bandage and look at the joint, in which we desire to get motion, if possible, though we may not succeed in this. There is fortunately no heat about the knee, and, strange to say, no ecchymosis from extravasation of blood, which is so common after such rough handling as this limb has received. I am now able to make slight movement in the joint, and the patient says that it does not give him the slightest pain. This is quite exceptional, for very often it is necessary to give chloroform before making any motion whatever. I have obtained sufficient movement to prevent adhesions from forming, and each succeeding day it will be found that a little more motion has been gained, until at last the patient will be provided with an instrument with a key, by which he can make the motion himself. In the meanwhile the sponge may now be left off of the artery, and friction, shampooing, and electricity may be used about the joint.

Having two or three very interesting cases of rotary-lateral curvature to show you to-day,

I should like to make a few remarks on that subject. This affection is a vast deal more frequent than most persons would suppose. Formerly I used to have an idea that it was pretty nearly confined to women and young girls growing up; but of late I have been quite surprised to find such a large number of men afflicted with it. Until the last two years I always disliked very much to have anything to do with such cases, because I felt that I could really do nothing for them. In Pott's disease I had some success among the rich, though the treatment was not very satisfactory, with Taylor's splint; and among the poor, who could not afford to buy the apparatus, I got along a great deal better with the plaster-of-paris "turtle shell" applied to the back. But with lateral curvatures I could not do anything at all, and I used to send them all to anybody who said he could cure them. I like Dr. Banning's method the best, and he used to get most of them; but in the end they all came back again without having received any benefit, and some of them worse than before. You see here half a cart load of old iron, steel and brass, which is really a part of the various appliances which patients have been wearing when they have consulted me for treatment. Mr. Broadhurst's apparatus, which I now show you, for screw and lever power, excels any that I have ever seen; but the trouble with it is that after the screw is turned to a certain point it only does injury instead of good. The torture resulting from such instruments is almost indescribable, and the agony that I have seen patients endure while wearing them has been most affecting. Yet a young girl with a large fortune, a pretty face and a crooked back will suffer anything and do anything in the world if she thinks she can only be made straight by it.

But, owing to recent progress in this department of orthopedic surgery, I am glad to say that we are now able to discard them all, and Dr. Judson, of this city, has given us a beautiful demonstration, which shows why it is that we can improve upon the old methods of treatment. The grandchild of one of the first surgeons in England, who had lateral curvature, and was also supposed to have hip-joint disease, for a long period wore this elaborate back and leg splint which I here show you, and which weighs no less than forty-two pounds. At last the agony of the child became so great that he could not bear the instrument any longer, and during my recent visit to England I was requested to see him. On making a careful examination I found that there was no hip-joint disease whatever, but that the leg on the affected side was an inch and a quarter shorter than the other, in consequence of diastasis of the hip, which had occurred in early childhood, and which is, as you know, equivalent to a fracture of the thigh. The child had gotten well with simply a shortened limb; but, owing to this, the back had become temporarily distorted, a primary and secondary curve of the spine resulting from his efforts to keep his equilibrium. An inch and a half was added to the sole and heel of the shoe worn on the shortened limb, and when this was put on it was found that the back became perfectly straight, and this instrument was, in consequence, presented to me as a trophy of correct diagnosis. This case illustrates very forcibly the paramount importance of always getting at the cause of a curvature.

I now exhibit to you Dr. Judson's very ingenious contrivance for showing the philosophy and mode of production of lateral curvature. It is, as you observe, simply a spinal column with a flexible steel rod running through it, and the several vertebræ attached to the frame-work, in which it rests by means of elastic ends. When pressure is made upon the top of the column, it will be observed that rotation of the vertebræ is always produced, and that there are always two curves, a primary and a secondary (or, it may be, a number of primary and secondary curves), resulting. So long as the column is compressed, you can put on all the instruments in the world, and the curves will still exist, and until it can be extended, it is utterly impossible to straighten it. You may even crush in the ribs with the force applied; but no power on earth will make the spine straight until it is loosened at the one end or the other. For this admirable demonstration, as I said, the profession is indebted to Dr. Judson.

The first case that I show you to-day is that

of a young lad, who first came to me three days ago, and who even in that short time has become much less crooked than he was then. Suspension by the head and hands was first practised by Dr. Benjamin Lee, of Philadelphia, in following out the idea of the late Dr. Mitchell, who recommended suspension by the hands alone, but never brought the matter prominently before the profession. The first time that I suspended this young man, the latissimus dorsi muscle stood out so prominently that I thought I should have to make a subcutaneous section of it, but I now find that this will not be at all necessary. During the three days he has been practising self-suspension by means of the tripod and suspensory apparatus which I have had occasion to show the class so frequently, and he is already greatly improved. Having taken a measurement of the patient's height standing, we now proceed to suspend him equally by the head and axilla, in order to put on the plaster jacket. Before this is applied the patient should always procure a skin-fitting shirt, which should be knit to order, after careful measurement. Before putting on the plaster, a folded towel, which I am in the habit of calling a "dinner-pad," should be placed along the anterior part of the chest abdomen, and we are then ready to commence. The bandage, which, as you know, is made of crinoline, into which powdered plaster has been thoroughly rubbed, and is be soaked through with water when it is to be used, should be snugly wound around the trunk without being at all tight; and as the house surgeon is making the successive turns, I follow with my hand, rubbing the folds well into all the irregularities of the surface. The latter is a very important part of the proper application of the plaster dressing, and should never be neglected. It also prevents air from remaining between the folds of the roller. After one or two thicknesses of the bandage have been applied, narrow tins, about a foot in length, may be laid along the thorax, as they help to support the dressing, without adding materially to its weight. The jacket being all complete now, I proceed to make use of a device for causing the plaster to set quickly, which I obtained from an Irish lady during the last summer, and that is the application of a heated iron, and for this purpose I have had constructed a little roller, which is very handy. It also adds a hardness, finish, and polish to the exterior dressing which it would not otherwise have. Before the plaster gets thoroughly hardened (after laying the patient down), your assistant should hold the top of the shirt firmly while you draw out the "dinner-pad," and with your hands you should then press upon the casing, just in front of the anterior spinous process of the ilium, on both sides, so as to flatten it out a little and remove pressure over the bony prominences. If the dressing seems a little weak at any point, it is very easy to strengthen it by wetting the hands and rubbing on some more plaster; and if the jacket extends too high up under the axilla, or is found to be so long as to cause discomfort when the patient sits, it should be cut a little at these points. It is in such careful attention to little details that the success of the treatment in a large measure depends. The plaster being sufficiently hard, the patient may stand up again, when we find that he has now gained, by actual measurement, one inch and some eighths by this single application of the jacket. It is probable that as time goes on, he may unfold at least half an inch further.

The second patient is an adult man who ought to have been fully six feet high, but who is, you will observe, very much less than that. As he suspends himself by his head, and raises himself by grasping the rope with his hands above it, you will notice that the back straightens a good deal; but this is a very bad case, and in such it takes several months to get the ribs into the right position, and sometimes they never yield. Whatever you can gain by suspension, however, you can retain by means of the plaster. When the patient is not suspended, you will observe that there is in his side a very deep depression, and when I place my hand in it, it is pressed upon very forcibly by the distorted ribs. I regret to say that the iron cross-piece of our tripod, which was not constructed of good material, has given way, and in consequence we will not be able to apply the plaster dressing to this patient at present.

In conclusion, I will make a few remarks on

the after-treatment. Each patient should be provided with an apparatus for practising self-suspension. When at home, it can be attached to the wall or ceiling by means of a strong screw, and when the person is travelling a folding tripod should be carried along. Every night and morning the patient should suspend himself or herself three times, and during each suspension should make three deep and full inspirations. It was apprehended by some that respiration would be interfered with by the plaster jacket; but in every single case that has been under my care the power of respiration has been markedly increased, as actually demonstrated by the spirometer. This increase is usually from sixteen to twenty-two cubic inches. The colour of these patients is usually very bad before treatment, owing to the impeded circulation, but at once changes when they have been suspended and the plaster applied. There was one young lady I remember in particular, who was sent to me by Dr. Mary Putnam Jacobi, and who had always previously been exceedingly pale, but whose cheeks became as rosy as any you could wish to see in the short space of twenty-four hours. In the course of a few days after a jacket has been applied, it will be found to have become too loose, and it should then be cut down and tightened, or else an entirely new one applied. It may then be worn from one to four weeks, as the case may be, and somewhat later it may be cut down the front and made to lace up like a corset. Still later in the treatment, when it is no longer necessary to wear the plaster jacket, an appropriately made corset may be used, with great benefit, in its place.

The old notion of curing spinal curvature by lifting the axillæ is an absurd one, for the axillæ have really nothing to do with the spine; but it is a very different matter when the patient suspends himself by the hands placed above the head. In that case you in reality elevate the ribs by means of the serrati muscles; and if you can fasten the thorax while thus stretched out to its fullest extent, and then continue to maintain it in that position, you have gained a very great deal, as must be evident to the dullest comprehension. This the application of the plaster jacket enables us to do, and in the most successful manner.—*Med. and Surgical Reporter.*

ON STRICTURES OF THE INTESTINE STATISTICALLY CONSIDERED WITH REGARD TO DIAGNOSIS AND TREATMENT.

We append a synopsis of a paper on this subject jointly prepared by Dr. Sidney Coupland and Mr. Henry Morris of the Middlesex Hospital, and read at the late meeting of the British Medical Association at Manchester. The subject is considered under five headings, (1) Situation of strictures, (2) Nature, (3) Perforation, (4) Treatment, and (5) Diagnosis; and the sources of enquiry were the *post-mortem* records of the Middlesex Hospital from 1844 to 1877 and the *Transactions of the Pathological Society* from the inception of the Society in 1846 to date. The former source afforded 31 cases, the latter 32.

I. Situation of Strictures.—Out of the 31 cases in the hospital records in no fewer than 27 was the disease found in the large intestine. Of the remaining 4 cases, in 1 it involved the ileo cæcal valve, in another the lower end of the ileum, in a third the upper part of the ileum, and in the fourth the jejunum. Out of the 32 recorded in the *Transactions* 31 involved the large bowel alone, and 1 the lower end of the ileum and the cæcum. No strictures of small intestine are recorded by Brinton, Fagge or Duchaussoy, and hence it would appear that strictures of the ileum, or of the gut above, are of extreme rarity. In one of the cases here referred to the stricture was so small as only to admit of the passage of a No. 7 Catheter, and yet it had given rise to no symptoms during life. In 58 out of 63 cases therefore the seat of stricture was in the large intestine. Out of the 27 Middlesex cases in 24 the stricture was in the sigmoid flexure and rectum (12 in each), in 2 in the middle of the tranverse colon, and in 1 in the descending colon. Out of the 31 cases in the *Pathological Transactions* we find 1 in the cæcum, 3 in the hepatic flexure, 2 in the splenic flexure, and 2 in the middle part of the transverse colon, 2 in the descending colon, 13 in the sigmoid flexure, and 8 in the rectum. Thus in round numbers nearly three-fourths of the cases affect the lower end of the intestines.

II. Nature of the Strictures.—It may be stated in general terms that the majority of the strictures are malignant. The absence of secondary infection of remote viscera may be explained by the fact that the new growths mostly belong "to the class of Epitheliomata, which are notoriously the most local of all forms of cancer, and also possibly because they lead to fatal results before the system comes to be infected." The writers are inclined to regard those strictures presenting to the naked eye the appearance of "annular ulcers" as being malignant, since microscopically they present infiltration of the deeper tissues with an exuberant growth of cylindrical epithelium. A small number are due to scirrhus and colloid cancer, and the remainder are due to cicatrization of tubercular, dysenteric and syphilitic ulceration, the latter being chiefly limited to the rectum. Out of the 32 cases recorded in the *Transactions* 18 are recorded as cancer, 8 as simple stricture (of which 7 affected the sigmoid flexure, and some were probably epithelioma), 1 as tuubercular ulceration of sigmoid, 2 of the same region not classified, and 2 syphilitic strictures of rectum, and 1 dysenteric ulcer. Out of the 31 in the Middlesex register, 20 were undoubtedly cancerous, 7 described as simple strictures (of which some were in the form of "annular ulcers"), and 4 as "ulceration with stricture."

III. Perforation.—In a large number in which the obstruction was complete and unrelieved by operation up to the time of death, the fatal issue was due to perforation of the gut either just above the seat of stricture or at the cæcum. The reasons why the cæcum suffers in this way are: its shape—a mere *cul-de-sac* acting as a reservoir—its dependent position, which favours accumulation, and its fixity between the abdominal wall in front and the musculus iliacus behind, and the constant chafing to which the distended gut is subjected between these two large muscular masses.

IV. Treatment.—In those cases of rectal cancer in which the diagnosis by means of physical examination is easy, of course, the only rational procedure is the performance of left colotomy; "and all, in such cases, recognize the futility of delay, and the long-lasting relief, for months, or even for years, frequently obtained by that operation." "In all other cases, where the history is one of chronic obstruction, where the age of the patient favours the view of cancer, where, in fine, it is probable that a stricture of the bowel exists, then, without wasting time over repeated injections, administering powerful and harmful purgatives, we think that recourse should speedily be had to colotomy in the right loin." Right colotomy is recommended under these circumstances, because in about one-fourth of the cases the stricture is higher than the sigmoid flexure, and in all an undue strain is thrown upon the cæcum which, if not soon relieved, will give way beneath the pressure. "The danger of delaying this operation cannot be too strictly insisted upon." The disease may be seated in the cæcum itself or in the small intestine, and under such circumstances the operation for right colotomy may find the ascending colon collapsed and empty, the wound in the loin should then be stitched up and enterotomy performed, or the small bowel may be opened at the loin if thought desirable. "For ourselves we may say that to us it seems that, in all such cases, where the distention of the intestines is a source of suffering as well as of danger, the operation of enterotomy is as imperatively called for as is that of puncture of the bladder in cases of over distension from impermeable stricture, and notwithstanding that fatal disease of the kidney may be already established." They regard a free opening into the bowel as more effectual and safer than acupuncture. "It is true that many hold with Trousseau that puncture is not dangerous; but in a recent discussion at the Clinical Society of London, there appeared to be a pretty general consensus of opinion that acupuncture of the bowels was in many cases attended with considerable risk."

V. Diagnosis.—This is a matter of much difficulty; and "it is often impossible to be sure whether the disease is situated in the small or large bowel." All rules have occasionally been found wanting; and the amount of fluid which may be injected, auscultation over various parts during its injection, and

even the passage of the long tube have proved fallacious. If digital examination have proved negative, it may be worth while to have recourse to the method, largely employed by Simon of Heidelberg, and first practised in England by Maunder, of introducing the whole hand into the rectum. *A propos* of this a very pertinent caution is inculcated in the remark, "This method was employed in one of our cases of stricture of the sigmoid, but, owing to the folds of the canal the stricture was not reached; and it was well that it was not, for at the necropsy subsequently, the bowel at the seat of stricture gave way on the slightest traction." Others have been more successful in reaching the stricture, and also in bursting the gut. But fortunately the precise determination of the seat of stricture is not of primary importance. "We know that three-fourths of the cases of stricture involve the rectum and the sigmoid flexure; and we know that of the remaining one-fourth a very small proportion are seated above the ileo-cæcal valve." "We know also that the chief part to suffer from the effects of stricture of the large bowel is the cæcum; and we know that if the ascending colon be opened, in 90 per cent. of these cases the opening will be above the seat of stricture, and will also give relief to the over-distended cæcum; whilst, as for the remainder —that is, those cases in which colotomy fails in its object—enterotomy should be performed, and relief thus afforded, although it may be with but a very imperfect conception as to the exact locality of the source of obstruction."

Detection of Particles of Hepatic Structure in Abscess of Liver.—Dr. Samuel Fenwick recommends (*Lancet*, Nov. 17, 1877) a careful examination of the discharge of a hepatic abscess, however produced, as the amount of hepatic or pulmonary structures that may be present is the best indication of the gravity of the case. The same method of precedure should also be extended to the examination of the discharge from other organs, and thus not only may the exact structure from which the pus proceeds be detected, but the rate at which the ulceration is progressing may be acertained, and thereby a more accurate prognosis formed.

IRRIGATION OF THE LARGE INTESTINE.

BY C. W. DULLES, M. D.

Some time since, in reporting a clinical lecture of Dr. Alois Monti, of Vienna, (*Philadelphia Medical Times*, August 4, 1877, p. 517), I gave an account of the method of irrigating the large intestine, which he uses so successfully in treating inflammatory conditions of that part of the bowel.

About the time of this publication I met one day Dr. W. C. Barrett, who spoke to me of a severe case of infantile enteritis then under his care. The child was aged six months; had been very ill, vomiting and purging incessantly; had at that time a rapid, feeble pulse; was in a state of extreme depression, and he thought must die. He had employed the usual remedies,—chalk, bismuth, opium, aromatic and astringent tinctures, with enemata of laudanum and acetate of lead; but all apparently in vain. Consequently he was quite ready, at my suggestion, to try the plan of irrigating the large intestine alluded to. This he carried out with a so-called fountain syringe, to the tube of which was attached a flexible male catheter. This being introduced into the rectum, cool—not cold—water was allowed to flow from a height of about two feet until good distention was secured, when with scarcely any pressure the end of the catheter passed smoothly through and beyond the sigmoid flexure, going well up into the descending colon. The water was now allowed to flow steadily on until about a pint and a half had entered, and inspection and percussion showed a large portion of the colon to have been filled. All medicine was then stopped, except mistura cretæ, and for food, milk was allowed and the sucking of a piece of slightly-roasted beef.

The next day there was a marked improvement. "The method," says Dr Barrett, "worked like a charm." He now repeated the irrigation, using not quite so much water. The improvement continued, and convalescence was so rapid that he considered the child well in six days. The vomiting and purging were gone, it was able to suckle and digest properly, and the only treatment used afterwards was a short tonic course to assist nature in repairing the

inroads made by the disease upon the child's general condition.

The success achieved in this case seemed so plainly dependent upon the precedure described that it furnishes me a welcome opportunity to recommend it to others more explicitly than in the previous article. I have seen it used by Monti in a variety of disorders of the large intestine, as well as for the expulsion of worms and flatus, and always with good results.

In inflammatory conditions of the colon in children he has used solutions of nitrate of silver, such as have been recently recommended in the treatment of dysentery in adults by Prof. H. C. Wood (see *Philadelphia Medical Times*, October 27, 1877), but decidedly prefers less powerful astringents when—which is very rarely—any are required. In such a case he is apt to select alum in a one or two per cent. solution, sometimes adding a few drops of laudanum. In general, however, he confines himself to the use of simple water, beginning with a temperature barely cool and descending with the successive irrigations till it is about that of spring-water.

He never uses a predetermined quantity, but allows enough to flow in to fill the whole colon "*to the valvula coli.*" In children not yet weaned he finds more than two pints may be used; older children require up to twice this quantity. The quantities used in Prof. Wood's cases of adults were very small compared to these.

It should be stated, in regard to the mode of effecting irrigation, that Monti strenuously opposes the use of a syringe of any kind. The intermittent and uncertain action of these provokes resistance on the part of the intestine, and he thinks may do harm. The securing of an even and easily-regulated hydrostatic pressure is an essential feature of his method. *Still more essential is the distention of the rectum with fluid before attempting to pass the tube through the sigmoid flexure.* This precaution secures the smoothing out of the folds of mucous membrane and straightens the curves of the flexure, thus rendering the passage of the tube perfectly safe and easy.

Whatever variety of opinion there may be in regard to the possibility of sending an *injection* beyond the sigmoid flexure, there can be none in regard to the feasibility of "irrigation" by any who have tried or seen it.

Finally, I may say that no special position of the patient is necessary, though it is well, if convenient, to have the pelvis a little elevated. The steps of the procedure are sufficiently indicated in the case given above.—*Phil. Med. Times.*

Midwifery.

ON DYSPAREUNIA.

BY T. GAILLARD THOMAS, M.D.,

Professor of Obstetrics and the Diseases of Women and Children in the College of Physicians and Surgeons, New York.

(Reported by P. Bryenberg Porter, M.D.)

GENTLEMEN: The case which I bring before you to-day is one of considerable interest in several respects; but there is one special feature about it upon which I should like to dwell at some length a little further on. The patient's name is Mrs. Rose G., aged thirty-eight years. She is a native of Ireland, has been married fourteen years, and has had five children and one miscarriage. Her youngest child is two years old, and the miscarriage, which was at the third month, occurred two months ago. Though never very robust, she tells us that the trouble of which she now complains has been experienced only since July last (four months). She suffers continually from a fixed pain seated in the right iliac fossa, and not infrequently extending down the lower extremity of that side as far as the toes, and chiefly affecting the great toe. It always runs down the anterior and inner aspect of the limb, and never the posterior part as well. At the time of the menstrual periods this pain becomes very greatly increased, and extends around to the back, which is never the case at any other time. At the last two menstrual epochs it has been so severe as to confine her to bed, and cause her the most intense suffering. It becomes severe, she says, about two days before the catamenia make their appearance; but when the flow begins it again diminishes. From the history to which you have just listened, my suspicions were at once excited in regard to one organ, and that was the right ovary. But why not the uterus or left ovary? Because of the seat and peculiar character of the pain, which, you will remember, is fixed at all times in the right iliac fossa, is excessively aggravated and extends around to the back, at the menstrual epochs (and at this time only), by reflex action runs down the inner side of the leg to the great toe, becomes increased two days before the appearance of the menstrual flow, and, lastly, is relieved when the flow begins. These are the

peculiarities of ovarian pain, and whenever they are noticed you should always suspect one, or perhaps both, of these organs. Putting a few direct questions to the patient, we find that she suffers constantly from leucorrhœa, but has no irritability of the bladder or rectum; and that the pain of which she complains has been much worse during the last two months (or, in other words, since her miscarriage) than it was before.

In the physical examination, with the patient lying on her back, the first thing that I noticed when I passed my finger into the vagina was, that the os uteri was not in its normal position, but considerably higher up than it ought to have been; and I also found that the cervix was lacerated to a certain extent. Carrying the finger back of the cervix, I felt a soft mass apparently connected with it, which I suspected to be the body of the uterus; and, on conjoined manipulation, which was made without any difficulty, after a few forced expirations, on account of the laxness of the abdominal walls, I ascertained with certainty that the uterus was enlarged, retroverted, and tender on pressure. But this was not all that I discovered; for, upon pressing over the right broad ligament with the hand that was upon the abdomen, I detected a pulpy mass of the size of an English walnut lying back of the uterus in Douglas's cul-de-sac, and so exquisitely sensitive that the patient cried out with pain the moment that I touched it. Now I was fully prepared to find such a body in this position, and would have been much disappointed if I had not, because the history pointed so evidently to chronic ovaritis of the right side. It might, perhaps, be supposed that the body which I felt was either a fibroid or a small phlegmon; but fibroids are not sensitive, and cannot be pushed away from the uterus, as I found it possible to do with this mass, and though phlegmons are tender on pressure, its mobility also showed that it could not be one of these. Furthermore, the great nervousness of the patient was an additional reason for supposing it to be an ovary.

The patient was now placed upon the side, and a Sim's speculum introduced, when the ovary was pushed completely up out of reach. In order to confirm the diagnosis of retroversion, the uterine probe was passed to the fundus (which did not occasion the patient the slightest inconvenience), and it was found to take a downward and backward direction. Here, then, was a case of laceration of the cervix, hyperplasia, and retroversion of the uterus (the latter being probably caused by the former), and of chronic ovaritis. The patient is at a loss to account for the miscarriage from which she suffered two months ago, but it was no doubt due to one or more of the above abnormal conditions.

But there is one other symptom of the case of which I have not as yet spoken, but which is a very prominent one, and one to which I now desire to call your particular attention, and that is *dyspareunia*. I have already had occasion to allude to it in connection with the first case presented to you at the clinic this session; but to-day I propose to examine a little more fully into its causes and treatment. I accept the term, which means difficult or painful coitus, from Dr. Barnes. It is derived from the Greek word δυσπαρευνος, signifying *ill-mated*. The only way to treat this symptom is to find out all that you possibly can about the cause, and then remove that if it is practicable. Now how shall we approach it in the case before us? When the finger is passed into the vagina, three tender points are detected by it. The first met with is the cervix, at the part where it has been lacerated, for this accident has produced a neuralgic condition here. The second is the congested and displaced uterus, and this may, perhaps, have something to do with its causation; but neither of these conditions, as I would have you particularly note, is often concerned in the production of dyspareunia. Thirdly, we have an inflamed and exquisitely sensitive ovary, and that, you will find, is one of the commonest of its causes. The pain on pressure, too, is far more acute than at either of the other points just spoken of. You remember the aphorism of Hippocrates, *Propter uterum mulier est*. Prof. Peaslee in his work has rendered it more strictly correct by substituting the word *ovaria* for *uterum*. The ovary may be not inappropriately termed the pendulum of the female clock; and I have

not the slightest doubt that this woman could be easily thrown into an hysterical condition by a little continued pressure on the diseased organ.

These cases of dyspareunia are often exceedingly troublesome, and they will tax your ingenuity to the utmost when you get into practice. It is a most prolific cause of domestic infelicity, for the husband is made unhappy, and the wife is not only rendered mentally miserable, but suffers from the most profound derangement of her nervous system. The causes of dyspareunia are numerous, but I will endeavour to enumerate all that you will be at all likely to meet with. You will be pretty certain to find one or more of these conditions present in every case of the affection in which you are consulted, and if you will bear them in mind, you will be surprised to see how often you can remedy the trouble, and how much real happiness you will thus have the means of conferring. You all know how much a man is physically disordered when he is unhappy; a woman's disorder is always tenfold greater from the same cause. The first cause that I will mention is—

(1) *Hyperæsthesia of the Hymen and Ostium Vaginæ.*—If you will recall the case of vaginismus which I showed you about a month ago, and the extreme suffering which the mere attempt to introduce the finger within the vulva occasioned the patient, you can readily appreciate why this should be a very prominent cause of dyspareunia. But it sometimes happens that after this condition has been removed, the symptom still persists, because there has been some other cause present as well.

(2) *Diseased conditions of the Os and Cervix Uteri.*—Lacerations sometimes produce it, as we have seen, and it is also occasioned by hyperplasia of the cervix resulting from chronic inflammation of its lining membrane, which affects the nerves supplying the parenchyma.

(3) *Stricture of the Vagina.*—This is sometimes congenital and sometimes the result of the exanthemata or of continued fevers, like typhoid and typhus, occurring during childhood. I have seen one case in which it followed measles. Sloughing of the vagina was a concomitant or sequel of the disease, and a stricture was its result. Such strictures often escape notice entirely until after marriage, for they do not amount to complete atresia of the vagina; but while they permit a free passage of the menstrual blood they present an effectual barrier to sexual intercourse.

(4) *Pelvic Cellulitis and Peritonitis.*—These are two of the most irremediable causes that you will meet with. As a result of the inflammatory process, the whole pelvic roof becomes, as Dougherty expresses it, as hard as a deal board, and often extremely sensitive to the slightest pressure upon it.

(5) *Uterine Displacements.*—The dislocated organ is in a neuralgic condition, because there is marked derangement of its innervation and circulation. Unlike the last, this condition is one of the most curable of the causes of dyspareunia.

(6) *Coccyodynia.*—The attention of the profession was first prominently directed to this affection by Sir James Y. Simpson, but it was really observed before this by the late Dr. Nott of this city. There are two forms of it, one purely neuralgic in character, and the other an actual disease of the bone (caries), and the latter is much the more severe. There is sometimes a most violent pain during defecation from it, and sometimes a continued neuralgic condition of the coccygeal nerves.

(7) *Fissure of the Anus*, and

(8) *Irritable Urethral Caruncle.*—The latter is a little proliferation of the structures of the mucous membrane at the meatus urinarius, usually about the size of a small strawberry, and having loops of nerves running down into it, which render it excessively painful during micturition and coition.

(9) *Chronic Cystitis.*—This is quite a common affection among females, though it is, perhaps, a somewhat rare cause of dyspareunia. But sometimes the inflamed viscus is acutely sensitive, and the irritability which characterizes it is communicated to the adjacent parts.

(10) *Short Vagina.*—This is another cause which is congenital, and which remains unaltered through life. The uterus remains in a constant state of irritation from coitus (which occasions the patient very great suffering), and continually pours forth a glairy discharge of

mucus. The greatest unhappiness to both man and wife frequently results, and to illustrate this I will relate a case which came under my notice some time ago. The husband was a vigorous man of powerful physique, and, though very wealthy, of not much refinement. His wife, unfortunately, suffered from the trouble which we are now discussing, and in consequence he became exceedingly morose, and at length left her altogether. He then got into bad habits, and about a year ago committed suicide; this melancholy result being attributable, as I believe, to the condition spoken of. Of course, I may be mistaken in my explanation of the case, but from the circumstances I can hardly doubt that it is the true one. Before leaving it, I may say that, owing to the constant discharge from the cervix, the patient was never pregnant.

(11) *Disproportion.*—As we read in the Scriptures that "there were giants in those days," so there are now. To no class of cases can the original signification of the word dyspareunia, "ill-mated," be more appropriately applied. This is one of the causes which, as you may readily imagine, is the most irremediable, and this unfortunate abnormal development on the part of the male often occasions the greatest amount of distress. Lastly, we come to the cause which is no doubt the true one in the case before us, and which I have left to the last not because it is an unimportant one, but simply for the reason that it exists in our patient, viz.:—

(12) *Chronic Ovaritis.*

There are two other conditions which occasionally produce dyspareunia, but I would not rank them with those already given, because when present they are accompanied by other symptoms which are much more prominent than this. They are—

(13) *Malignant Disease of the Cervix.*—And—

(14) *Fibroids situated near the Cervix.*—These are ordinarily not at all sensitive; but if they take on an inflammatory process, as is occasionally the case, they become so.

I now propose to speak of the removal of some of these causes. The first step towards this in any given case is, of course, to ascertain what is the true cause of the dyspareunia. Have we done so in the present instance? I think so, but am not positively sure in regard to it. I think it probable that if the inflamed ovary could be kept up in its proper position in the pelvis, where it would be out of reach of the irritation produced by coitus, and its present diseased condition be somewhat ameliorated, the dyspareunia would entirely disappear. But, as we have seen, there are other conditions present here which may possibly give rise to the symptom. How shall we then decide? Well, we may regard the matter as pretty certainly determined by the fact that the ovary presents the point of maximum tenderness, the sensitiveness of the other two points before mentioned being insignificant compared with it. If the first cause upon the list, viz., hyperæsthesia of the hymen and ostium vaginæ, were present, the mere attempt to separate the labia would occasion the patient an extreme amount of suffering, and produce a high state of nervous excitement. I have so recently spoken of the treatment in this condition that it will be unnecessary for me to go into the subject now. If there is some diseased condition of the cervix, like the laceration in the present case, a careful digital and specular examination will reveal all that is requisite to enable us to relieve it. If there is a stricture of the vagina, or an abnormally short vagina, the mere passage of the finger will be sufficient to detect the condition, though unless the greatest care is observed, we may be deceived as to the fact of a vagina being really too short. If dyspareunia is the result of pelvic cellulitis and peritonitis, we would find great tenderness existing all over the hypogastrium, when conjoined manipulation is attempted, and about the roof of the pelvis. We may also find hard masses of exudation or collections of pus, which have resulted from the inflammatory affection.

Some of the other conditions mentioned must be looked for very carefully, or we shall fail to discover them. It is astonishing how frequently patients, in describing their symptoms, will entirely omit to mention the most important of all. A woman, for instance, will come to you with a vague account of some dyspeptic derangement, and never say a word

about the pint of blood which she may have vomited a day or two previously. I once knew of a sailor on a man-of-war who, while under treatment for fracture of the thigh by the young assistant surgeon of the ship, was visited by the fleet-surgeon in his rounds, and described to him a long train of symptoms, but neglected altogether to mention the broken leg. Intense agony during defacation is the most prominent symptom of fissure of the anus., and yet those who suffer from it will sometimes not mention it, because females, as a rule, dislike very much to speak of this condition. You know how much suffering a little crack at the corner of the mouth will occasion in cold weather, giving rise to some neuralgic pain which extends as far up as the eye. The pain from fissure of the anus is of the same character, but infinitely more intense, and during the act of coition affects the nerves of all the surrounding tissues. Pain is thus transmitted all over the vagina, and the same is true in regard to coccyodynia, We must be very careful not to overlook a sensitive urethral caruncle. It is apt to give rise to great irritability of the bladder; but irritability of this viscus is so frequent an occurrence in females that they seem sometimes to regard it as really a natural condition, and will not remember to mention it. So chronic cystitis not infrequently entirely escapes notice, and though it is often a very intractable affection, it is frequently amenable to treatment by means of free dilatation of the urethra, which enables us to keep the bladder thoroughly washed out by the use of appropriate injections. As I have previously indicated, nothing can be done where there is a congenitally short vagina, or when disproportion is found to exist.

But chronic ovaritis especially concerns us to-day, and I am confident that we can do a great deal of good in the way of treatment in this particular instance. We shall utterly fail in all our attempts to give relief here, however, unless we can raise the ovary out of its present position and keep it so elevated. It was demonstrated that it could easily be forced up out of Douglas's cul-de-sac, when the speculum was introduced, and I would now recommend that it should be retained in its natural situation by some appropriate form of pessary. The shape and size of the vagina vary so greatly in different individuals, that in any case whatever in which a pessary is to be worn, it is absolutely essential that only one especially adapted to it in every way should be inserted. There is too much indiscriminate use of pessaries at the present day, and this I believe to be one great reason why they so often do harm, and why they have gotten into such bad repute in certain quarters. In the present instance I might, perhaps, at first make use of the simple elastic rubber ring, known as Meigs's pessary; and finding that this did not accomplish the result designed, I might employ Hodge's or Albert Smith's modification of that; or, more probably, I might resort to a modification of Cutter's very excellent pessary, which is retained in position by an elastic band attached to an abdominal belt, and whose essential feature is a hard-rubber bulb, which fills up all the post-uterine space, and would thus effectually keep the ovary up out of Douglas's cul-de-sac.

Further than this, the patient should be instructed to remain very quiet at the time when physiological congestion of the ovary occurs. For several days before each menstrual period she should lie in bed, while the bowels should be kept relaxed and every possible source of irritation removed. When the flow makes its appearance she should be allowed to get up again, for she is to be treated not for disordered menstruation but disordered ovulation. There is one remedy which seems often to have a favourable influence in these cases by allaying nervous excitability, and that is bromide of ammonium. I am in the habit of giving it in from ten to fifteen grain doses, combined with some bitter tonic, three times a day for four or five days at the menstrual epoch; always taking care to antedate somewhat the period of ovulation.

Lastly, galvanism should be given an extended trial here; the constant current ought always to be used in such cases. I would recommend that about twice a week one sponge electrode, mounted on a long handle, should be applied directly to the ovary, or as near to it as you can get in the vagina; and that the other, a broad, flat one, should be applied successively for a few minutes to the abdomen, and the spine, near the dorsal vertebræ. I have been told by specialists in electro-therapeuties, that this is a very uncertain method of reaching the ovary with the galvanic current; but as they have been unable to suggest any better way, I still continue to employ it.—*Med. News Library.*

Materia Medica.

STRYCHNINE AS AN EXPECTORANT IN BRONCHITIS.

In this season of *bronchitis*, it may be practically useful for your readers to know the great utility of strychnine as a true expectorant by its action upon the respiratory centre. Like ammonia, it does not act upon the mucous lining of the air-tubes, but upon the nervous centres of respiration. The experiments of Prokop, Rokitansky, and others, with this agent, show that it has a decided action in stimulating the respiration by acting upon the respiratory centre in the medulla oblongata. Ammonia acts in the same manner. Ammonia is commonly added to cough mixtures for its stimulant expectorant effect. It enables the patient to respire more perfectly and so to expectorate the phlegm more effectually. This is of the utmost importance in bronchitis when the stage of free secretion is reached and the air-tubes are full of mucus and the patient is in danger of choking. Here the battle lies betwixt the powers of the patient and impending exhaustion. The ordinary mixture of carbonate of ammonium, spirits of chloroform, and senega is very useful; and some tincture of squill will be found a useful addition. But increasing clinical experience of strychnine leads the writer to the couclusion that of all agents which exercise a stimulant effect upon the nervous mechanism of the respiration, strychnia is one of the most potent and useful. Strychnia acts powerfully upon the expiratory part of the respiratory act, and kills, by producing spasm of the muscles connected with expiration. It is very useful, then, when expiratory efforts are required for the expulsion of mucus gathered in the air-tubes. In chronic bronchitis, with emphysema, it is of great service, and in the dyspnœa connected with advanced Bright's disease it is very efficacious. It produces good effects when given alone, and is a useful addition to ordinary cough mixtures. A combination of carbonate of ammonium, tincture of nux vomica, and tincture of squill, is a most excellent mixture for patients suffering from dyspnoea, and generally procures them "more breath," as they phrase it. One of the most important matters connected with such use of strychnia is its relation to sleep. In many of these cases sleeplessness is a prominent factor; and sleep can be procured only by a narcotic. But while the narcotic acts upon the nervous system generally, it also acts upon the respiration, probably at its centre in the medulla, and the patients are apt to wake up with an attack of dyspnoea. A series of cases has demonstrated that by the use of strychnia the respiration is so improved that the patient can go to sleep without the narcotic, and, more than that, sleep fairly well, and be quite free from attacks of breathlessness, which awaken the patient and cause him to add voluntary respiratory efforts to the automatic act of respiration. By resort to strychnine these patients can be much relieved.—*J. Milner Fothergill, to Phil. Med. Times.*

POISONING BY CARBOLIC ACID TREATED BY APOMORPHIA.

G. W. Semple states that a patient took by mistake two teaspoonfuls of strong carbolic acid. In a few minutes she was in a state of great debility, and complained of a violent burning sensation from the fauces to the stomach. The pulse was full, slow, regular and strong. Solution of bicarbonate of soda was ordered and taken. She quickly, however, fell into a semi-comatose state, and was with difficulty made to swallow six ounces of olive oil. Forty minutes after taking the poison, rather more than half a grain of apomorphia in twelve minims of water was injected subcutaneously. In three minutes there was copious emesis, which continued at intervals of twenty minutes for an hour and a half. A very large fæcal evacuation followed, with an abundant flow of a smoky-coloured urine, having a strong odour of carbolic acid. Recovery, without ill effects, took place. Dr. Semple lays great stress on the rapidity with which the apomorphia acted as an emetic, and strongly recommends all who practise to keep it in solution, as it requires some time to make up.—*Practitioner.*

Hospital Reports.

HOPITAL NECKER.

On Pulmonary Tuberculization. The Difficulty of Diagnosis.

BY M. POTAIN.

We have at present in the wards three patients of whom I wish to say a few words to you, because they all three have a bearing upon an extremely important question, one upon which physicians are far from being decided. I desire to speak of the diagnosis of pulmonary tuberculosis and of the prognosis of that affection.

The first of these patients is a young woman of twenty-six years, recently confined, in whom the disease is manifested by very clear and precise characters. We find on the right side of the chest, behind, a remarkably evident diminution of sonority, especially in the supra-spinous fossa, whence it is propagated, getting gradually less distinct throughout the whole of that side of the chest. At this part also the respiration is enfeebled and expiration prolonged. Beyond doubt these signs are of great importance. Note well, however, that in themselves they signify absolutely nothing, and that their sole value here is due to the fact that they predominate at the upper part of the chest. She commenced to cough during her pregnancy, but never spat up blood.

In bed No. 21, St. Adelaide ward, is lying another woman in whom the disease has existed for a much longer time. In her case the rational signs are completely wanting; auscultation of the chest reveals no trace of *râles* and no notable diminution of the vesicular murmur; the sonority is also normal throughout the whole extent of both lungs. There is, however, an extremely slight shading at the right apex, but it is so slight that the establishment of a diagnosis could not be based upon this fact. But this woman is much debilitated and very anæmic; she is extremely pale, with a peculiar earthy tint in the countenance; her eyes are sunken and encircled, the nose a little pinched, the brow slightly wrinkled in its upper part; in a word, her expression resembles that which is observed in certain diseases, amongst which are uterine affections, and which has been designated by the term *facies hippocratica*. This appearance of the face would naturally lead us to examine the condition of the womb. Up to the present this examination has not been made; there can be no doubt, however, that there exists some lesion of this organ, for since she has been sick this woman has begun to suffer from leucorrhœa; she complains of pains in the kidneys, and in the belly, so that we are justified in admitting the existence of a uterine affection, as to the nature of which we shall be enlightened later on. Lastly, it must be added that this patient is notably dyspeptic; she digests badly and suffers from constipation, acid eructations, &c. Although we are still without one important element of the diagnosis, a direct examination of the uterus, we can nevertheless now ask ourselves, admitting, that which we shall determine later on, either a tumefaction of the neck, or a uterine catarrh, or some other notable alteration in the womb, we can now ask ourselves, I say, if this affection is by itself sufficient to account for the condition of this woman, or if we should search further and reflect that the complex symptoms which we have before our eyes,—symptoms on the part of the intestine, the uterus, and the pulmonary apparatus, may be under the domination of a phthisical condition superior in importance, and anterior in point of time, to them all. Several reasons justify us in believing that this last hypothesis is the correct one: in the first place, this woman comes of a tuberculous stock, for her mother died of consumption after a very long illness. Moreover, while a child, she was subject to catch colds, and before falling sick she was already anæmic and debilitated. From these recollections it results then that, although we have not a positive sign of pulmonary tuberculization, and although we actually have a uterine affection, we must not on these accounts indulge in a too favourable prognosis and confine ourselves to treating the disease located in the uterus. We must, on the contrary, rather regard the uterine affection, and the troubles which accompany it on the part of the intestine, as occurring under the influence of the tubercular diathesis, and the patient as belonging to the category of those in whom the

tubercular diathesis instead of manifesting itself at first by thoracic symptoms, displays its manifestations in the stomach or the uterus.

Lastly, the third patient whom I desire to bring to your notice is that young girl who lies in bed No. 15 of the same ward, and who presents for our examination phenomena not less embarrassing, although more pronounced, than those in the preceding patient. This young girl entered the hospital on the 17th October with a very intense febrile attack. Auscultation discovered throughout the whole of the right lung, behind numerous subcrepitant râles mingled with some sibilant râles. On percussion, the sonority of this side was a little less than that of the opposite side, but uniformly diminished throughout the whole height of the lung. Add to this that the appetite was completely lost, and that, as I have already said, there existed an extremely intense febrile movement dating back for some ten days. In presence of a considerable febrile state, and of signs of an unilateralised bronchitis, what diagnosis should we make? In itself the bronchitis presented nothing peculiar, but what possessed a great interest was the localisation of the inflammation in one side of the chest. In fact, bronchitis as a general rule invades both lungs at once. It, however, sometimes happens when the disease is slight, that the râles are found only on one side. This is equivalent to saying that only on this side have the tumefaction and hyperæmia of the mucous membrane proceeded far enough to give rise to stethoscopic bruits; but when the lesion is more pronounced the evidences of the bronchitis are almost constantly double. And, moreover, when the râles are only heard on one side of the chest the facility with which they pass, even in a day, from one lung to the other suffices to establish the diagnosis. Thus, when these signs are limited to a single side, and when they remain limited to this side, we should always think that special reasons localise the bronchitis in this region. These reasons are numerous: such are, among others, the lesions which, like foreign bodies for example, bear upon the bronchi themselves, and by their prolonged presence determine an irritation which extends little by little along the bronchial tree; such are also tumours of the mediastinum, which, like aneurisms of the aorta, compress the bronchi and end by producing inflammation. But these are exceptional facts, and when the lesions are limited to one side the first cause which should enter our minds is pulmonary tuberculization. In fact, amongst the causes which may give rise to a unilateralised bronchitis, it is necessary to place in the first rank pulmonary tuberculization; and it is to this and to the bronchitis that the only objective signs, by means of which we recognise tubercle at the outset, are due. As for these latter (tubercles) themselves, they are not capable of producing any of them (the signs). These phenomena consist especially, as you know, in diminution of the vesicular murmur, diminution of sonority, and, lastly, in certain modifications of the respiratory rythm, such as prolonged expiration, &c., all phenomena which are due not to the presence of tubercles but to the pulmonary congestion which accompanies this pathological product. This is so true that we may have tubercular granulations in a lung without finding any sign on ansculta-tion if pulmonary hyperæmia do not accompany the tubercles. In the same way, on the other hand, we may have the signs of pulmonary tuberculization without crude tubercles or tubercular granulations. This is equivalent to saying that pulmonary hyperæmia, even when it is limited to the apex of a lung, may exist without granulations, and that it is fixed there by something which is capable of determining that congestion independently of the existence of granulations. This, moreover, is equivalent to saying that the granulations are not necessary for the production of these signs; that consequently these latter only reveal the existence of a pulmonary hyperæmia, and indirectly the commencement of tuberculization, because pulmonary hyperæmia, localised for a certain time, is allied to the occurrence, already or in the near future, of pulmonary tubercles. The same is true of the *subcrepitant râles* and of cracklings when they are larger. They are, in short, signs of bronchitis, and it is not necessary for their existence that there should be tubercles either softened or in process of softening. But when they are numerous, when they acquire a certain volume, the supposition is that tubercles have

already invaded the apex of the lung, and that they have probably reached that stage in which a part is in process of softening. But what they point to especially is a bronchitis limited to the apex of the lung, where it is determined by some cause or other, amongst which tuberculization is one of the most frequent and most constant. There were therefore in this young girl reasons for thinking of pulmonary tuberculization. Besides, at the end of some days the stethoscopic signs became predominant at the upper part, the respiration became rude at the apex, and in this region a rather marked loss of clearness of the percussion note was noted: the diagnosis was confirmed. As these signs became manifest in a very short space of time, as, moreover, there existed an extremely intense febrile movement, we should ask ourselves if we had not to do with one of those cases of the rapid form of phthisis which has been described under the name of galloping consumption. From the first day it appeared to me that such was not the case. In fact, the signs which we found were the signs of simple generalised bronchitis with predominance at the apex, in a young girl previously scrofulous, descended from a tubercular mother it is true, but in whom nothing justified the supposition that she was affected with a malady to which she must of necessity succumb. This was, moreover, one of those cases in which the prognosis is extremely embarrassing. It is not rare, in fact, to see, in certain subjects, the disease develop with frightful rapidity, then, when the physician has pronounced a fatal prognosis, the stethoscopic signs disappear, even leaving behind them the lung in a state of perfect integrity. You understand how the reputation of the physician is compromised when, in presence of such cases, he has announced that the malady will be inevitably mortal. But this is not equivalent to saying that the suspicions of the practitioner were ill-founded, and that the patient was not tubercular nor in the way of becoming so. Tuberculization, in fact, has not necessarily a progressive course, as is ordinarily supposed; it is even susceptible of cure. M. Gueneau de Mussy, whose authority in such a matter no one will venture to deny, has reported several such cases which had the features of chronic tuberculization it is true; but things may also take the same course in tuberculization of the acute form. I have myself had positive examples of it. It is then certain that patients having the commencement of granular tuberculization may see their disease become arrested, sometimes permanently, at others only for a longer or shorter period.

To return to our patient, her condition has become ameliorated in rather a rapid manner. To-day the fever has disappeared, she coughs but little, and yet the *râles* persist in front, a circumstance which leads us to ask ourselves if she have softened tubercle, or still only bronchitis with generalised pulmonary congestion. This latter hypothesis is the only one which can be affirmed in a positive way, but are there tubercles behind this? I should find much difficulty in answering, no, for, as I have said before, we should always answer with much reserve, and I, therefore, prefer to consider this woman as being the subject of a tuberculization which may subsequently develop under the influence of any sufficient cause, pregnancy for example, as I have seen it do before.

Pulmonary tuberculization is then, you see, extremely difficult of diagnosis. Hence the necessity for the physician not to rely simply upon the objective signs which he finds upon exploration of the lung, but to analyse them and combine them with the indications furnished by the general state of the patient, his antecedents and hereditary predispositions, before forming his conclusions, for it is only by grouping together all the elements of a case that we can arrive at a diagnosis which shall be approximately true.—*Gazette des Hôpitaux.*

TORONTO GENERAL HOSPITAL.

CASE UNDER J. E. GRAHAM, M.D.

J. P., æt. 47, tailor. Admitted T. G. Hospital, October, 1877. Patient's chest deformed owing to lateral curvature of the spine. Came on in childhood. He has suffered for some years from asthma and chronic bronchitis. In the winter of 1875-76, he noticed that a faintness sometimes came over him when at work. His companion remarked that his face was swollen. He had then some œdema of the limbs, which has since continued.

During the summer of 1876, patient improved, but was again seized with the bronchitis in the following winter. Present condition. Patient has a dusky countenance owing to venous blood. He is very weak. Limbs very much swollen. Breathing difficult. On examination of chest, bronchitis and emphysema were discovered. The cardiac dulness was increased in extent, especially on the right side. There were no abnormal beat sounds.

Nov. 18th, 1877. Patient died to-day. He has been gradually getting worse since his admission. Latterly his countenance has been quite livid, and the swelling of the limbs enormous. *Post-mortem* examination. Heart very large. Right side very much dilated. Walls thin. Left ventricle of normal size. Walls somewhat thicker than normal. Valves were healthy. Parts of both lung emphysematous.

In this case the dilatation of the right side of the heart appeared to be entirely due to the condition of the lungs. It moreover exhibits one of the modes in which death may be brought about by chronic bronchitis and emphysema.

Repeated Infection by Acute Exanthemata.—Dr. v. Huttenbrenner (*Jahrbuch f. Kinderheilkunde*, X, 3 and 4) has come to the following conclusions regarding a second infection with acute exanthemata, especially scarlatina. I. Scarlatina can appear in the same individual a second time even after a comparatively short time, in his cases after two months. II. In order to make the diagnosis of a second eruption, not any one symptom, by itself, should be considered as sufficient—all the symptoms ought to present and characteristic desquamation must never be wanting. III. The fact that even after so short a time, recovery from scarlet fever does not protect against second invasion makes it a necessity to isolate the patient, as we are by no means sure that the second attack runs its course as mildly as the first; on the contrary, the second attack is frequently much more severe than the first. IV. There seems to be a certain amount of predisposition in certain families for second invasions of scarlatina.—*Clinic.*

Translations.

Warm Baths in Chronic Rheumatism.

The fact that all the mineral waters of any efficacy in chronic rheumatism are of a high temperature, led M. Lasègue to enquire if the temperature were not the chief element in the treatment rather than the chemical composition of the water. Experiment has demonstrated his hypothesis to be correct, for, he affirms that in a large number of cases he has very frequently observed the patients to present a great amelioration after baths of high temperature. The baths should not, at first, be given at the temperature desired to be reached; they should be gradually heated up to 40° (104° Fahr.) or even 45° (113° Fahr.) if the patient can bear it. M. Lasègue has seen patients, who were absolutely bed-ridden, able, after a prolonged treatment by simple baths of from 40° to 50° (104°-113°) extending over some months, to resume their occupations in part, and to make use of, anew, joints which had previously been condemned to immobility! This treatment may be employed almost indefinitely, but it is always necessary to be cautious not to administer the baths during the acute or subacute crises of chronic rheumatism.

For internal medication, when there is any contra-indication for the baths, as frequently happens, M. Lasègue has preferentially recourse to the tincture of iodine in large doses; he has even reached fifty or sixty drops per day. In which event in order to avoid iodism it is necessary to give the remedy at meal-times.

In cases of loss of appetite or of dyspepsia in rheumatic, as in gouty patients, the remedy which is most successful in restoring the digestive functions, is lemon juice given in great abundance. It is much more efficacious than the bitters or the remedies called aperients. But in order that it may be well borne, an indispensable precaution is to give it absolutely pure; mixed with water or with sugar it is much less tolerated by the stomach.—(*Journ. de Méd. et de Chir. Prat.*)—*Gaz. des Hôp.*

Therapeutic Uses of Iodoform.

In a communication to the *British Medical Journal* of 26th January on this subject, Mr.

Berkeley Hill bears testimony to the value both of the local application and the internal administration of this remedy in certain syphilitic cases. He says that for three years his almost invariable treatment for venereal sores has been to brush the iodoform as a dry powder lightly over them with a moistened camel-hair pencil. An ethereal solution (1 part of iodoform in 6 or 8 of ether) may be substituted for the dry powder, as the ether rapidly evaporates leaving a pellicle of iodoform upon the sore. The sore is previously well washed with water, and, after the application is covered with a piece of dry lint. When the secretion is abundant the dressing must be renewed twice daily, one dressing, however, usually suffices. Inflamed sores, or simple granulating wounds are to be avoided; but indolent, non-specific ulcers are rapidly improved. He regards iodoform given internally as more efficacious than potassic or other iodides, and equally well borne. He gives it in one and one-half grain doses as a pill with extract of gentian. Three pills are given each day, increasing gradually till 8 or 10 pills are taken in the 24 hours. When this number has been reached, symptoms of iodism may appear. He has found it especially beneficial in obstinate syphilitic ulcerations of the tongue, and in the intensely agonising pain in the head caused by syphilitic pericranial and cranial disease in which the remedy has acted like a charm.

From *L'Union Médicale.*

We extract from a review in this Journal of Th. Gallard's "*Clinique Médicale de la Pitié*" the account of his mode of treatment of Abscess and Cysts of the Liver:—"Puncture is made with an ordinary trocar of rather large size; in general, the liquid is evacuated completely and without the least difficulty, but it may be facilitated, if necessary, by practising aspiration. The evacuation having been accomplished, the cannula of the trocar is left *in situ* for several days; this is sufficient for the establishment of adhesions between the walls of the cyst or abscess and the abdominal wall, so that, later, injections or irrigations may be made in the diseased cavity without the least danger of penetrating into the peritoneum."

M. Gallard has reported remarkable examples of rapid and lasting cures which he has effected by employing this method of treatment.

From *L'Union Médicale.*

ANTI-PSORIATIC ADHESIVE LOTION.

BY W. COTTLE.

Caoutchouc, 15 grammes; chloroform, 225 grammes. Dissolve. In cases of chronic psoriasis, accompanied by an excessive formation of dry scales, and sometimes thick crusts, the crusts and scales are as far as possible removed, and all traces of greasy matter got rid of, by wiping the skin with a rag dipped in ether or rectified spirits. This having been done, the skin is carefully dried; then by means of a brush a thick coating of the solution of caoutchouc is painted over the affected parts. This application is renewed as often as is necessary in order to form and preserve a continuous, uniform, and thoroughly adherent covering of caoutchouc. The author thinks that this treatment is also applicable to certain cases of chronic eczema, but he has not yet collected a sufficient number of observations to enable him to judge. The local treatment by the caoutchouc covering, however extended, does not in any case do away with the necessity for appropriate internal medication.

From *Le Progrès Médical.*

In the No. of *Le Progrès* for 22nd December M. P. Regnier records a case of "death from ulceration of the vertebral artery in a case of Pott's Disease in the suboccipital region." About three months before the death of the patient a post-pharyngeal abscess had been opened. About five o'clock one morning 25 oz. of blood escaped from the patient's mouth, but the hæmorrhage stopped spontaneously. Later in the day another hæmorrhage occurred and carried the patient off.

ANTI-HERPETIC MERCURIAL LOTION.

Bichloride of Mercury	gr. 1½
Muriate of Ammonia	ʒss.
Alcohol	ʒiv.
Distilled Bitter Almond water	ʒiv.

Dissolve the salts in the alcohol and distilled water and add Emulsion of Bitter Almonds to ℥xvi. Use as a lotion in Pityriasis, acne, chronic eczema and pruritus.—*L'Union Médicale.*

From *La France Médicale.*

Ovarian Cyst opening into the Intestine.

In the *Revue Mensuelle de Médecine et de Chirurgie* for November, 1877, M. F. Terrier records the case of "a woman thirty-one years of age who entered the wards of M. Lépine at the *Hôpital Beaujon* on the 17th January, 1876, and who had suffered from a unilocular cyst of the ovary for two years. On the 30th of January it opened into the intestine; and about the middle of the month of June the patient left the Hospital in a perfect state of health." These cases are comparatively rare.

From *L'Union Médicale.*

Treatment of the Purulent Ophthalmia of the New-born by a Solution of Iodine in Distilled Cherry Laurel Water.

BY M. LUTON.

This solution consists of 1 gramme of Tincture of Iodine in 20 grammes of cherry-laurel water. The liquid is instilled, by means of a dropper, between the pupils in indefinite quantity from 4 to 6 times a day. This treatment is even better than the Nitrate of Silver, and it does not expose the case to any accident, such as necrosis of the cornea.—(*Un. Méd. et Sc. du N.E.*)

The Prevention of Hydrophobia.

Mr. Jonathan Hutchinson writes to the *British Medical Journal* suggesting the removal of the canine teeth of dogs as a preventive measure. He says: "The small number of dogs in which these teeth are required for special purposes might be exempted. It is the formidable canine tooth which in nine bites out of ten does the damage; without it few dogs would be able to bite through clothing, for instance, and in their attacks upon each other, they would probably, usully fail to break the skin."

Cryptogams in Typhoid Fever.

Mr. Feltz has submitted to the Paris Academy of Sciences a note affirming the presence of Cryptogamic germs in the blood of patients suffering from typhoid fever. These germs appear to be capable of vegetating in flasks containing pure air alone.

From *L'Union Médicale.*

Antiscrofulous Pomade.—Pourche.

Bromide of potassium ʒi; axungia ʒvijss. Dissolve the bromide in a little water and incorporate it with the lard. Two or three frictions a day to be made in the very numerous manfestations of scrofula, such as scrofulous opththalmia, and glandular engorgements. It is also efficacious in goitre.

Solidification of Hydrogen.

At the *Académie des Sciences* on the 14th January. M. Dumas announced that M. Raoul Pictet had effected the solidification of hydrogen at Geneva on the 10th of January. This remarkable success was obtained under a pressure of 650 atmospheres and at a temperature of —370°.

Carminative Potion.

DESBOIS DE ROCHEFORT.

℞ Aquæ Menth. Pip..... ʒiv. ʒvss.-ʒv.ʒv.
Essential Oil of Anise .. gtt.x-xij.
Hoffmann's Anodyne ... ʒss.-ʒj.

Fiat Haustus. (Rubbing up the essence of anise with a small quantity of sugar.) To be taken in tablespoonfuls by persons affected with flatulent dyspepsia, to provoke expulsion of the gas and promote digestion.—(*Union Médicale.*)

Russian Students.—It will not be forgotten that a Russian imperial ukase recently recalled to St. Petersburg the Russian ladies who were studying at the *Polytechnicum* of Berlin, with threats of dire penalties against those who did not hasten to obey. We learn that eight of these ladies, belonging to the best families, have been condemned by Russian tribunals, six to exile in Siberia and several years of hard labour (in the mines) and two to prison. They were accused of taking part in secret societies.

THE CANADIAN
Journal of Medical Science,
A Monthly Journal of British and Foreign Medical Science, Criticism, and News.

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending their addresses to the corresponding editor.*

TORONTO, MARCH, 1878.

PUBLIC HEALTH BILL.

Doubtless all our readers are in possession of a copy of the list of the questions submitted by the Select Committee on Public Health to practitioners generally throughout the country. We shall however be much suprised to learn that they have been able to transmit to the Clerk of the Legislative Assembly for the information and guidance of the Committee any satisfactory replies to the queries referred to. This unfortunate condition of affairs does not lie at the doors of the medical practitioners, but rather is inherent in the character of the interrogatories themselves, to which no categorical answers, as seems to be expected, could be intelligibly returned. The absence of any evidence of skilled assistance or advice in the drafting of these questions is much to be lamented, since the very laudable intention which prompted their issue is likely to be thereby seriously hindered, if not utterly frustrated. We have, nevertheless, much reason for felicitation in the fact of their being submitted to the profession before any action was taken in the matter, since it is another evidence of the increasing public recognition of the services medical men are capable of rendering to the State, and avoids a repetition of that monstrous anomaly in legislation which enabled the Public Health Act of England, consisting of some 370 clauses, to pass through its various stages of development from its inception in 1848 to the consolidation of its various congeners and amendments a year or two ago, without consulting medical opinion in general or even that of the medical officer to the Privy Council in particular. In the entire absence of any really operative sanitary enactments in this country we cannot but view with much satisfaction and entire approval any step, however imperfect, towards the removal of a great social scandal and national disgrace; and we therefore look with much favour upon this indication of an awakening of the legislative mind to the necessity of abandoning the old practice of *laissez faire* in sanitary matters. It is our purpose here to make a few remarks which may prove of service in this connexion, and we shall endeavour to indicate some of the chief points in regard to which sanitary legislation appears to be urgently demanded.

In the first place, then, a central sanitary authority connected with the Government appears to be indispensably necessary. We have already instituted Boards of Health in the various municipalities, or, at all events, the necessary legislative enactments for their erection. But the law is a dead letter as far as execution or administration is concerned. This results, in our opinion, in a great measure from the absence of a centralising body and a living head. The great desideratum therefore appears to us to be a Provincial Bureau of Public Health and a responsible Minister of the Crown who shall preside thereover. As an assistant and technical adviser to this Minister there should be a specially skilled medical officer, selected, not upon political grounds, but for conspicuous merit and special adaptation to the requirements of the office. He should also have the aid of a staff of assistants specially skilled in hygiene, vital statistics, pathology, toxicology, sanitary engineering, and sanitary physics. There should "also be a College of State and and Legal Medicine furnished with all necessary appliances, such as laboratories for original research, a technical museum, and a library." A veterinary department should be added for the purpose of studying the diseases of animals and their influence upon and connexion with human ailments. It should be required of every Medical Officer of Health or candidate for the public medical service to have passed through this College, for it cannot be doubted that a special training and education is required to fit him for the duties of his office. This central body

should be endowed with the power to compel by process of law all Local Sanitary Boards to appoint Medical Officers of Health; to require them to make periodical reports to the central authority of all matters connected with sanitation in their districts, and more especially vital statistics, the occurrence of epidemic diseases, and the existence of noxious trades, or industrial operations which may prove injurious not only to the operatives therein engaged but also to the residents of the surrounding neighbourhood. The Central Board might properly be looked to for assistance and advice in the removal or suppression of these injurious influences. To quote the words of Dr. Arthur Ransome, "The Central office would freely offer the assistance of its well-trained inspectors, and encourage all persons both in public and private, to take advantage of its stores of special knowledge and experience; but it would leave all communities at liberty to select those methods and those appliances that might seem best suited to the locality, with whose wants they might be presumed to be most thoroughly acquainted." In the case however of neglect on the part of the local authority to take appropriate steps in connection with the removal of any insanitary conditions which might be brought to their notice, the central authority should be endowed with power to direct, and should take measures to compel the local authority to do whatever might seem necessary in the premises. The object of all sanitary administration being the removal of the preventible causes of death, it is absolutely necessary for this purpose that correct statistics of the causes of death should be obtained. This, however, cannot be done unless a uniform nosological catalogue of the causes of death be determined uponand rigidly adhered to. All diseases causing death should be certified by their proper scientific appellation, and all vague and unscientific names should be scrupulously avoided. Moreover, medical practitioners should insist upon their right to make *post-mortem* examinations in all cases of death of obscure origin, and should resolutely decline to certify the cause until it had thus been made apparent, or all means of its discovery exhausted. No inhumation of a body should under any circumstances be allowed in the absence of a certificate *of the registration of the cause of death.* Until this be done the value of our vital statistics must remain worthless and deductions therefrom necessarily fallacious. As to those hitherto collected in this country Carlyle's remark is very justly applicable, for they are "like the sieve of the Danaides, beautifully reticulated, orderly to look upon, but which will hold no conclusion." The matters at present specially requiring legislative enactments for their suppression are over-population of certain town districts, insalubrious condition of dwellings and premises as well as thoroughfares, the increased use of intoxicating drinks and the imperfect care and instruction of children. Besides these matters we should have some thorough provision made for the inspection of food designed for human consumption, for expert supervision in the construction of public institutions, and also of private dwellings. "Certain prescribed requirements in regard to drainage, heating, lighting, and ventilation would soon come to be understood and met, even by ordinary architects and builders."

Lastly, the popularization of Sanitary Science must be attempted in our schools and press and pulpit. The people must be thoroughly imbued with the knowledge that there is a private as well as a public hygiene; that "intemperance, immorality, injudicious marriages, excesses of every description, overwork, idleness, and depressing passions" are offences against the Laws of Health which are inevitably attended by penal consequences; that "they impair the constitution of the individual, and the well-being of the offspring, and in proportion to their prevalence they lower the standard of public health." "Above all the people must be taught that good conduct, personal cleanliness, and the avoidance of all excesses are the first principles of health preservation," for upon this education of the masses rests the fundamental element of sanitary progress.

☞ To Subscribers.—Our friends can readily ascertain when their subscriptions in advance became due by referring to the date attached to the address on the Journal. There are some still considerably behindhand who ought to "come down handsomely" and soon.

BILL TO AMEND THE ONTARIO MEDICAL ACT.

A new era of better things appears to be about to dawn upon the Profession in Ontario. Not only have they lately been consulted, as we have stated in another column, before the undertaking of fresh sanitary legislation, but we observe with satisfaction that a Bill has been drawn up under the direction of the Executive Committee of the Medical Council to be laid before the Legislative Assembly of Ontario, embodying several much needed amendments to the Ontario Medical Act.

Section one of this Bill, as will be seen by reference to another column, consists of the insertion in the Medical Act of a proviso that "no School of Medicine shall have more than one of its professors or teachers as a member of the Council." Now although to every uninterested individual it was perfectly apparent that this was the intention of the framers of the law, and the spirit of the Act, yet the insistance of Trinity Medical School, last year, upon its verbal rights under the Statute to have two of its lecturers at the Council Board (each representing a different body of course), and the opinion of legal counsel to the effect that the present wording of the Statute is defective in that respect would seem to show that it is necessary to have the matter placed beyond a doubt in order to avoid such Machiavelian claims and contentions for the future.

To Section three of this new Bill decided objection must be taken, since it manifests an inclination or desire to concede to the homœopathic and eclectic bodies privileges and facilities of access to registration which are denied to regular practitioners. Under the present Act, homœopathic and eclectic practitioners resident in actual practice in Ontario for the six years immediately preceding "the 24th day of March, 1874," are entitled to registration upon paying the usual fees; but in the new Bill it is proposed to substitute for the words, "the 24th day of March, 1874," the words, "his application for registration," thus opening the door to those who may have settled here subsequently to the passage of that Act, and who may still settle, upon the expiration of six years of illicit practice; in other words, the amendment grants special favours to certain individuals and confers a premium upon a six years' persistence in illegal practice.

Section four very properly provides that the words "teaching bodies," in the twenty-ninth section of the Medical Act, shall be read as "Schools of Medicine in actual operation," since it was intended that the Board of Examiners should consist of a certain proportion of actual teachers, who, beyond all reasonable doubt, make the best examiners.

The remaining Sections (six, seven and eight) are devoted to the extension and confirmation of the rights of registered practitioners. They speak for themselves, and meet with our hearty endorsation and support. It is high time that the scandalous excess of service, both to the individual and the State, expected from us, the great unpaid, over and above that expected from other members of the community, should be removed, and we regard the remaining clauses of this Bill as a step in the right direction. Should it pass the House, the day will deserve a white mark in the annals of Medicine in Ontario as indicating a commencement of a just appreciation of the fact that the medical labourer, like any other, is worthy of his hire.

Since printing the Bill to amend the Ontario Medical Act, and referring to it in our editorial columns, it has been changed in some particulars by the executive committee of the Council. We have reprinted the Bill as amended: sections two and five have been inserted since our remarks were written. With regard to section five, we think it would be far better so to amend the Act as to prevent unqualified practitioners, assistants, or students, even if matriculated, from practising, than to legalize a loophole that has already been frequently taken advantage of by non-registered men.

Something New.—Warner's Parvules.—Read their Circular folded with this number.

THE ANNUAL EXAMINATIONS.

When the Medical Council decided sometime ago that candidates for its license should undergo annual examinations like students in arts, they only acted in accordance with the spirit of the age, and they gave ample notice to all intending students that after a certain time the rule would be rigidly enforced. It was well known that all who commenced the study of medicine after a certain date would be required to conform to the new curriculum. No one can plead ignorance of the law, and yet certain parties interested in destroying the prestige of the Council, if not its very existence, injudiciously advised the students last year to resist the bye-laws of the Council by declining to submit to its examination and to compel it to admit them this year under the old curriculum. We know the students were warned against such a course as one both inexpedient and suicidal to their best interests. Nevertheless, some did unfortunately listen to the siren voice and are now engaged in the unenviable task of forcing the Council to stultify itself in order to save them the year they have forfeited.

It may be a hardship to compel these young men to observe the law they are trying to break, but they took the risk with full knowledge of the consequences and have none to blame save themselves and their advisers.

We have an intense sympathy with medical students, as we know only too well the privations and struggles that many undergo to obtain their professional education, but we also know that if their license is to command respect, either from themselves or the community at large, it must emanate from an authority not only noted for the wisdom of its enactments, but for the steadfastness of its purpose, for the firmness with which it withstands the assaults of secret foes or false friends, and for the vigour with which it enforces whatever rules it believes most likely to advance the best interests of the whole profession.

The Medical Council of Ontario has done a good work, is doing a good work, and we hope it will continue for many years, to labour with the same zeal, for the advancement of our noble calling, for the healing of those differences which have too often disfigured our records, and for the maintenance of that professional standard which is not inferior to any in the civilized world.

EDITORIAL CHEER.

[It is wonderful what an invigorating effect such letters as the following have on the editor's life. How they lighten his cares, increase his joys, and stimulate him to renewed efforts for the benefit of his readers.]

Dear Mr. Editor,—I am ashamed for the manner in which I have treated you in return for your kindness for having sent me your valuable and instructive Journal during the past year. It is such a welcome visitor that I look forward with delight to the first of every month, when it reaches me.

You no doubt, Mr. Editor, meet many discouragements; but *cheer up*, you are doing a noble work. Your Journal is a paragon of what a Medical Journal should be. I am glad and proud to see it enlarged and hope the young medical men who are aiming after excellence in their profession, will read, mark, learn and inwardly digest the important truths contained therein. You have given us *wheat* without chaff—*corn* without husk—*gold* without dross and *truth* without falsity, for all which please accept the gratitude and thanks of your much obliged servant.

You will please find enclosed $3.00 on my account.

Independence.—We may not be "the independent organ of the profession," and we may be "nothing but a school organ," but we have never devoted three separate editorials in one number to lamentation over the persecution of our colleague, because of his "illegal exclusion" from some position into which he tried to thrust himself, or because some pet enterprise of the school with which we happen to be connected failed to carry.

A meeting of the medical men of the County of Oxford was held at Woodstock on January 31st for the purpose of forming a Medical Association for that county.

Book Notices.

Practical Points in the Treatment of Strabismus. By A. MATHEWSON, M.D.

Annual Announcement of the Toledo School of Medicine for the Session 1878.

Manuel General de l'Instruction Primaire. Journal Hebdomadaire des Instituteurs et des Institutrices.

Malaria and Struma in their relation to the Etiology of Skin Diseases. By L. P. YANDELL, jun., M.D., Louisville, Kentucky. Reprint from *American Practitioner.*

Fifty-Second Annual Report of the Massachusetts Charitable Eye and Ear Infirmary for the year 1877. Boston : ALFRED MUDGE & SON, printers, School Street.

Toronto Eye and Ear Infirmary.—Statistics of the *Intern* or Resident-patients of the Eye and Ear Infirmary, Toronto, from the opening of the Hospital Department in 1870 to September 30th, 1877. There were 424 patients who were non-residents of Toronto, and only 82 Toronto patients. The former were maintained in the Institution an aggregate of 18,038 days, and the latter only 3,419 days. The directors will be pleased to furnish a list of the names of patients of any municipality on application to Mr. A. T. McCord, President.

MONEY VALUE OF LIVES.—Basing it upon the agricultural classes of Norfolk, Dr. Farr estimated that an infant at birth was worth twelve dollars and a half, in its prospective labour. Five years later his value as a productive agent was one hundred and thirty dollars ; and five years later it was more than doubled. At the age of twenty-five he has attained the maximum value, six hundred and fifteen dollars a year. At fifty it is reduced down to three hundred and forty-five dollars, and so on down to seventy, when the value is only two dollars and a half a year. Should he live to eighty his value is one hundred and two dollars less than nothing.

Obituaries.

EDWARD MULBERRY HODDER, M.D., C. M., F. R. C. S., ENG.

This distinguished member of the profession died at his late residence in this city on the night of the 20th ult., from brain disease. His last illness dated back to an attack of hemiplegia, early in January, from which he partially recovered and was able to drive out. Some two or three years ago he had a somewhat similar seizure which necessitated his abandonment of work, and a trip to Europe to recuperate his powers. On his return he resumed practice as actively as before, but latterly the flagging of the vital powers became again apparent, although, being endowed with great natural energy, he would not himself admit that the stress of years was becoming burdensome.

As stated by his newspaper biographer he was born at Sandgate, Kent, England, on the 10th of December, 1810. His early education was acquired at Guernsey, and at St. Servans in France. His father being a captain in the Royal Navy he was destined for that service, which he entered as a midshipman in his father's ship in 1822 ; but after a year's experience of a seafaring life, he abandoned it for the study of medicine, which was more congenial to his tastes. At the expiry of his five years of articleship to the late Mr. Amesbury, of London, he passed the Royal College of Surgeons, and then devoted two years to professional study in the French capital, subsequently visiting Edinburgh, and then settling down in London, where he practised for two years. After leaving London he began to practice amid the scenes of his boyhood associations in St. Servans, France. After a year of practise there he paid a visit to the land of his subsequent adoption, and then returned to St. Servans, where he remained in practice three years longer. In 1838 he commenced practice in Queenston, and in 1843 he removed to Toronto, where he continued in practice up to the time of his death. He was married in 1834 to Frances, daughter of Capt. Tench, of Her Majesty's 87th Royal Irish Fusiliers, by whom he had several sons and daughters. One

only of his sons entered the medical profession. According to the Ontario Medical Register he took the M. R. C. S. in 1834 and the Provincial license in the same year. In 1845 he received the degree of C. M. from King's College, now University of Toronto, and in 1853 that of M.D. from Trinity College. In the following year, 1854, he became F. R. C. S., Eng. by election. He was President of the Canada Medical Association for 1875–1876, and sat at the Council Board of the College of Physicians and Surgeons of Ontario as the representative of Trinity College from 1872 to the time of his death. He was President of the Toronto Medico-Chir. Society in 1862, and was a member of the International Medical Congress in Philadelphia in 1876 by special invitation. In 1850 he was instrumental in forming the Upper Canada School of Medicine, which immediately became connected with Trinity College as its medical department, and was suspended in 1853.

In 1857 he became a member of the Toronto School of Medicine, and his connexion therewith was maintained up to 1868.

On the resuscitation of the medical faculty of Trinity College in 1870 he became Dean of the Faculty, and continued to fill that office up to the demise of that department in 1877, when its faculty became separately incorporated as the Trinity Medical School, to preside over which, he was again selected. He took an active part in the various medical charities of the city, and his connexion with the Toronto General Hospital extended over 24 years. At his death he was one of the consulting surgeons to the General Hospital, the Burnside Lying-in, the Children's Hospital, &c.

During the long period of 34 years in which he was practising in this city he acquired a very extensive *clientele*, and the reputation which he gained throughout this Province generally, as a surgeon and gynæcologist, was second to none.

His contributions to medical science were not many, as, under the circumstances of his life, they could scarcely be; yet the unswerving confidence with which many looked to, and relied upon, his skill and judgment amply testified that his services to the individual were great. Chief amongst his recorded experiences must be mentioned the success which attended his transfusion of milk in two out of three cases of cholera. He was among the first to give this method a trial, and it is to be regretted that subsequent trials of it in other cases of collapse from puerperal hæmorrhage, &c., both in his own hands and others, have not been equally successful. After Henwood, of Brantford, he was one of the first to perform ovariotomy in this country, and probably has done a greater number of these operations than any other of our surgeons, with, perhaps, the average success. He placed on record a case of luxation of the femur into the perineum.

He was not, of course, a man of unerring judgment, but the long term of his clinical experience, and its wide extent, always lent the weight of practical authority to his opinions, and his decided manner of expressing them carried conviction to a patient's mind. He was a man of good abilities, excellent opportunities, and more than average attainments, possessing much natural *bonhomie* and a pleasing address. As far as *savoir faire* in its less commendable aspect is concerned, however, he was totally deficient, and, up to the last, he met with those who were not unwilling to take advantage of his want of scheming capabilities. His social instincts were well developed, and no pleasanter host could anywhere be found than was Dr. Hodder at the head of his own table, or that of the Yacht Club, over which he so long presided. A man of decided character and generous impulses he was a firm friend, and as firm a foe, yet not unwilling to forget a seeming injury. True to the sailor instincts of his early life he was given to "spinning a yarn" occasionally, and when opportunity offered would narrate many a wonderful experience in his yachting cruises, and in connexion with the "red man" of the forest, whose acquaintance he was fond of forming. He was Commodore of the Royal Canadian Yacht Club for many years, and published a chart of the harbours of Lake Ontario. He was always fond of rural life, and an evidence of the interest he felt in the denizens of the woods is embodied in a paper which he read before the Canadian Institute on "The Song-birds of Canada West."

The universal regret at his removal from our midst is tempered by the knowledge that in the course of nature it would not have been long delayed, and by the reflection that "death which shackles accident and bolts up change" is only the portal to that rest which he has so well earned through a long series of years of labour not devoid of trials.

We regret to observe in the English Journals the announcement of the death, on the 31st day of January, of Dr. Fleetwood Churchill, the late distinguished Professor of Midwifery in the School of Physic, of the University of Dublin; and in the French Journals the intelligence of the death of M. Claude Bernard, the eminent Professor of Physiology in the *Collége de France* since 1854. M. Bernard's chief contributions to Physiological science were the discovery of the diabetic centre in the floor of the fourth ventricle, the glycogenic function of the liver, and the uses of the pancreas. There was, however, no portion of his subject on which he did not contribute something to increase our sum of knowledge. He died at the age of sixty-four.

Dr. Hector Peltier, Professor of Institutes of Medicine in the Montreal Branch of Laval University, died on January 25th, at the age of 56. It was while attending his funeral that the fatal accident occurred to Dr. Robert Lee Macdonald, another of Montreal's most eminent physicians. Medical journals in Great Britain, France, the United States and Canada have had during the past month to chronicle the loss of very many of its most illustrious members, who leave behind as a monument of a noble work well done a reputation that will be "more lasting than brass and loftier than the regal structures of kings."

Dr. Lunsford P. Yandell, Snr. of Louisville, Kentucky, died on February 4th, age 73. Kentucky has lost one of her ablest and most celebrated physicians.

APPOINTMENTS.

James A. Sinclair, of the village of Hastings, Esquire, M.D., to be an Associate Coroner in and for the United Counties of Northumberland and Durham; James A. Sinclair, of the village of Hastings, Esquire, M.D., to be an Associate Coroner in and for the County of Peterborough; James Ross Anderson, of the Village of Ailsa Craig, Esquire, M.D., to be an Associate Coroner in and for the County of Middlesex.

Meetings of Medical Societies.

WESTERN AND ST. CLAIR MEDICAL ASSOCIATION MEETING AT CHATHAM.

One of the most profitable and interesting meetings ever held by this Association was convened at Chatham on Wednesday last. The members present were as follows:—Dr. Bucke, Supt. Insane Asylum, London; Dr. Fraser, Sarnia; Dr. Beemer, Wyoming; Dr. Mitchell, Wallaceburg; Dr. Sampson, Blenheim; Dr. Van Velsor, Blenheim; Dr. Tye, Thamesville; Dr. Smith, Ridgetown; Dr. Graham, Bothwell; Dr. Rutherford, Chatham; Dr. Lumley, Glencoe; Dr. Bray, Chatham; Dr. Holmes, Chatham; Dr. Murphy, Chatham; Dr. Richardson, Chatham; Dr. Bright, Chatham; Dr. Fleming, Chatham; Dr. Van Allen, Chatham; Dr. Sivewright, Chatham; Dr. Abbott, Chatham; Dr. Winter, Dresden.

On invitation, Professor McGraw, of Detroit, and Dr. Tates, of Washington, favoured the Association with their presence.

In the absence of the President, Dr. McLean of Sarnia, and the Vice President, Dr. Fleming, Dr. Beemer was elected chairman *pro tempore*, and called the meeting to order. After the reading and adoption of the minutes of the last meeting, held at Sarnia, several communications were read—one from the Secretary of Brant County Medical Association, relative to contract practice; also letters of regret from Drs. Brodie, I. M. Fraser and Edwards.

After attending to some business only of interest to the members of the Association, it was moved, seconded and carried, that Drs. Bucke, Fraser and McLean constitute the Printing Committee for the year ensuing, and that they be empowered to exercise their option with respect to the publication of papers in the forthcoming transactions.

The Vice-President, on his arrival, then took the chair.

The subject of a change of time and place for future meetings was introduced, and, after an expression of opinion by each member, it was unanimously concluded that the interests of the Association would be best served by holding the meeting semi-annually at Detroit in June, and at London in January. It was urged that

these cities could be easily reached by members living on any of the three great lines of railway; that freedom from interruption would be secured; that local jealousies and responsibilities would be avoided, and that some of the members would have other business in these cities which could be likewise attended to.

The tenure of office of those annually elected expiring at this meeting, the under-named gentlemen were proposed and elected to the following official positions:—

Dr. Tye, President.
Dr. McAlpine, Vice-President for Middlesex.
Dr. Lougheed, Vice-President for Lambton.
Dr. Lambert, Vice-President for Essex.
Dr. Sampson, Vice-President for Kent.
Dr. Fraser, Treasurer.
Dr. Beemer, Secretary.
Drs. Bucke and Richardson, Auditors.

All the purely business affairs of the Association now being over, the members prepare themselves for the literary and scientific treat they were about to enjoy in listening to the papers read by those members who had engaged to furnish them.

Dr. Fleming, of Chatham, read a carefully prepared paper on the "Causation and Pathology of Typhoid Fever."

A long and spirited discussion succeeded upon this subject, which was very ably dealt with by a number of gentlemen present, among others by Prof. McGraw, of Detroit. The greatest interest was evinced by each member in relation to this subject, and while some diverse views were maintained with force and ability, the utmost courtesy was displayed for opposing opinions. The conclusions arrived at were that typhoid fever may be, though rarely is, communicated from the patient to a healthy person, or may result from imbibition of impure water or by inhalation of poisonous atmosphere.

Dr. Fleming received the thanks of the Association for his paper.

The *piece de resistance* then followed, which was an elaborate and wholly original essay on "The Moral Nature and the Great Sympathetic," by Dr. Bucke, Superintendent Insane Asylum of London. A concise yet comprehensive review of this essay could only be given by reproducing *in extenso*, as the logical connection between the several links in the chain of argument were so intimate that one could not be given without the others.

Dr. Sampson, in moving a vote of thanks, said that such an essay could not but reflect credit upon the members of this Association, and also upon the members of the profession throughout the world.

Dr. Tye, in seconding the motion, considered the Ontario Government fortunate in securing the services of a gentleman of such exceptionable ability and executive power. Prof. McGraw, of Detroit, was elected honorary member of the Association.

Papers were promised for the next meeting by Drs. McGraw, Holmes, Lumley and Rutherford.

The meeting then adjourned, to meet at Detroit in June next.

After adjournment all present accepted Dr. Abbott's kind invitation on behalf of the Chatham Medical Association, to enjoy the hospitality of that Association at the Garner House, where a sumptuous repast was in waiting.

A. H. Beemer, Secy.

Miscellaneous.

The Edinburgh University has this winter 2,252 students, divided as follows: faculty of medicine, 922; of arts, 919; of law, 347; of divinity, 64.

The Germans propose to lengthen their already comparatively long period of study for a medical diploma. *Deutsche Med. Wochenschrift*, Nos. 46 and 47, 1877.

Dr. Bigelow reports in the *Practitioner* a case of tetanus caused by a rusty nail in the foot, which was relieved in less than thirty minutes by introducing a drachm of chloral hydrate into the wound after it had been enlarged by incision.

Canadians in England.—H. C. Murray, M.D., McGill College, and A. Lapthorn Smith, M.D., Laval College, having passed the required examinations have been admitted members of the Royal College of Surgeons, Eng.

BILL TO AMEND THE ONTARIO MEDICAL ACT. —Whereas, it is expedient that the "Act Respecting the Profession of Surgery and Medicine" chaptered one hundred and forty-two, in the Revised Statutes of Ontario, and commonly known as the "Ontario Medical Act," be amended, and the meaning thereof be made more clear and explicit, therefore:

Her Majesty, by and with the advice and consent of the Legislative Assembly of the Province of Ontario, enacts as follows:

1. The following words shall be added to Sub-Section two of the first part of Section six of the Ontario Medical Act, after the word "*belongs*," at the end of the said Sub-Section:

"And no School of Medicine shall have more than one of its professors or teachers as a member of the Council; such member being the Representative elected by such School."

2. Section nineteen of the said Act is hereby amended by adding at the end thereof the following words: Provided that the examination which he shall have passed in so Graduating or Matriculating in Arts, shall be proved to the satisfaction of the Council to be equivalent in all respects to the Matriculation Examination of the Council; but nothing herein shall be held to exempt such Graduate or Matriculant from the payment of the ordinary matriculation fee as fixed by the Council.

3. Section twenty-three, Sub-section three, of the said Act, is hereby amended by substituting for the words: "*the twenty-fourth day of March, one thousand eight hundred and seventy-four*," in the fifth and sixth lines of the said Sub-Section, the words: "*his application for registration*"

4. Section twenty-nine of the said Act is hereby amended by substituting for the words: "*teaching bodies*," in the third line of the said Section, the words: "*Schools of Medicine in actual operation*."

5. Section thirty-five of the said Act is hereby amended by adding thereto, and as part of the sentence ending with the word "*patients*" in the last line of the said Section, the following words: "and for any professional services "rendered by his order, and under his direction "to such patients, by any Assistant, provided "that in all cases such Assistant shall be a "Student of Medicine duly Matriculated ac- "cording to the regulations of the Council."

6. The following shall be added as a Sub-Section to Section thirty-five of the said Act:

Every duly qualified medical Practitioner, who, in accordance with the requirements of Section fifteen of the "Act Respecting the Registration of Births, Marriages and Deaths," chaptered thirty-six in the Revised Statutes of Ontario, shall duly record the death of any person upon whom he has been last in attendance during their last illness, shall receive from the Division Registrar the sum of One Dollar for recording the death and the cause thereof; but he shall not be exempted from the payment of the fine imposed by the Act aforesaid in the event of any neglect duly to record such death.

7. The following shall be added as an additional Sub-Section to section thirty-five of the said Ontario Medical Act:

No duly registered Member of the College of Physicians and Surgeons of Ontario shall be liable to any action of damages for "mal-practice," unless such action be commenced within one year from the date when the alleged mal-practice took place.

8. The following shall be added as an additional Sub-Section to Section thirty-five of the said Ontario Medical Act:

Every Member of the College of Physicians and Surgeons of Ontario, if summoned to give professional evidence at any inquest, criminal trial, or investigation of a criminal nature, shall, upon the Coroner, Judge, Police Magistrate, Justice of the Peace, or other judicial officer presiding at such inquest, trial, or investigation, certifying that the evidence of such Member was important, or likely to have been important, at such inquest, trial, or investigation, be entitled to demand and to receive from the Treasurer of the County or City where such inquest, trial, or investigation was held, out of the funds in his hands in the County or City Treasury, the sum of five dollars for giving such professional evidence, together with five dollars for each day's, or part of a day's necessary attendance or detention during the time such inquest, trial, or investigation was held; including among such days, the time necessary for travelling from and to his usual place of residence, to and from the place where such inquest, trial or investigation was held; and twenty-five cents for each mile of distance so travelled.

THE
Canadian Journal of Medical Science.
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U. OGDEN, M.D., *EDITOR.*

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☞ All Communications, Letters and Exchanges must be addressed to the Corresponding Editor.

TORONTO. APRIL, 1878.

Selections: Medicine.

TREATMENT OF ASTHMA BY IODIDE OF POTASSIUM AND IODIDE OF ETHYL.

M. Germain Sée, the learned Professor of Medicine in the *Faculté de Medecine* who lately introduced medication by the salicylates with so much *éclat* and success, has recently been making new discoveries in the domain of therapeutics. The object of his experiments this time (asthma) has been about as inveterate and intractable an enemy to human health and comfort as was the rheumatic subject of his former studies which the salicylates have done so much to mitigate, and it only remains to hope that experience at large will verify his last discovery as fully as its predecessor. We subjoin an account of his experience taken from *L'Union Médicale.* "After the trials made, with varying success, both by French and foreign physicians, of the employment of iodide of potassium in asthma, M. Sée, in 1859, conceived the idea of trying upon his own account this form of medication for the relief of so cruel and rebellious a disease. He had collected a number (24) of observations of patients whom he had been able to follow, some for a year at least, others during two, three, and four years. This number comprised 4 children, 6 adolescents, 10 adults, and 4 aged. In all these cases, except one, he obtained most remarkable results, totally regardless of the variety of asthma with which they were affected. At the end of some hours after the administration of the remedy he was able to observe a notable diminution of the symptoms of dyspnœa and oppression. The severer attacks were generally arrested at the end of 24 or 48 hours, and by persisting in the employment of the remedy the disease itself was definitively removed. By giving the medicine some hours before the usual attack he had been able to prevent the paroxysm; and by giving it during the paroxysm he had succeeded in notably diminishing its intensity. M. Sée begins by administering the iodide of patassium in doses of 22½ grains, sometimes alone, sometimes with the addition of half to one grain of extract of opium. When the oppression is considerable he administers 15 to 30 grains of chloral at night to promote sleep. The doses of iodide of potassium are gradually increased from 22½ grains to 30, and even 45 grains per day, taken at meal times so as not to disturb the stomach. M. Sée has observed that symptoms of iodism, when they have occurred, have been produced as readily if not more readily by small than by large doses of the remedy, so much so that, following the example of M. Gosselin, it has happened to him more than once to arrest the first symptoms of iodism by doubling the dose of the preparation of iodine. The primary action of the iodide of potassium is to notably increase the secretions of the respiratory mucous membrane, and thus to liquefy the bronchial mucosities, the dryness of which renders the paroxysms of dyspnœa so painful for the patients, and thus causes to disappear the dry and sibilant *râles* of the early stage, to diminish the difficulty of respiration, and render it freer and easier at the end of some hours by permitting the atmospheric air to penetrate completely to the pulmonary

vesicles. The orthopnœa gives place to normal respiration, and under the influence of the remedy the recent emphysema disappears as well as the exaggerated resonance of the chest. Whatever be the variety of the asthma, whether nervous or catarrhal, the effect produced is just the same, a fact which justifies the supposition that the iodide of potassium exerts a direct influence upon the nervous system. In order to maintain the happy effects of the remedy it is necessary to continue it uninterruptedly for months, and even years, under penalty of seeing the attacks return.

M. Sée has also been induced to try, in the paroxysms of asthma, another preparation, the iodide of ethyl, discovered by Gay-Lussac in 1825, and first studied from a therapeutic point of view by Dr. Huette, a collaborator of M. Claude Bernard, who, in 1850, established its principal physiological effects. M. Sée has observed the same results as M. Huette from the employment of this remedy, which is composed of ether and of iodine. When 5, 6, or 10 drops are given to a patient in a paroxysm of asthma the symptoms of dyspnœa are seen to be at once allayed, and the paroxysm to disappear. The patients declare that they experience a perfect calm, and themselves demand new doses of a remedy which has so rapidly afforded them such extraordinary relief. Thus, says M. Sée, in concluding his communication, therapeusis possesses in the iodide of potash an excellent remedy wherewith to combat asthma and all forms of dyspnœa by warding off or diminishing their attacks, to ameliorate and even cure the disease when its employment is long continued; it possesses, besides, in the iodide of ethyl a means of arresting at their inception those very painful paroxysms of dyspnœa and oppression whereby the disease is characterized.

NITRATE OF AMMONIA AS A SUBSTITUTE FOR ICE.—As a substitute for ice in reducing the body heat, Dr. Rochelt (*La Salute*) recommends nitrate of ammonia. He employs one part in five of distilled water. Placed in a bladder and applied locally this will in a very short period cause a reduction of one or two degrees. —*Allg. Med. Cent.-Zeit*, No. 1, 1878.

ON SUDDEN DEATH AFTER SEVERE BURNS.

At the recent Medical Congress at Munich, Professor Ponfick, of Göttingen, described some experiments he had performed with the view to discover the cause of sudden death after extensive burns. Scalding water was applied to dogs, and the results were classified with reference to the extent of the injured surface and the intensity of the heat applied. In all cases in which the burn was severe, important changes in the blood could be shown to take place a few minutes after the injury; the red corpuscles underwent disintegration, and were broken up into an infinite number of minute coloured particles. After a time, varying with their original quantity, these particles disappeared, but not without having set up serious disturbances in several organs remote from each other. The kidneys appeared to bear the brunt of the mischief; they excreted a large proportion of the hæmoglobulin which had been to some extent set free and was circulating in the blood. Their action in this respect, however, at least in severe cases, was accompanied by very severe parenchymatous inflammation, which was shown by the appearance in the urine of peculiar coloured casts by infarction of the uriniferous tubules, fatty degeneration of the epithelium, etc. Another portion of these fragments remained within the organism; it disappeared in the splenic pulp and the medulla of the bones, being taken up by the contractile cells, to undergo, in all probability, a gradual resolution. The reception of the particles by the cavernous tissue of these parts caused the organs to appear greatly enlarged, even to the naked eye, and to exhibit increased redness and succulence on section. Taking into consideration all the symptoms connected with burns, Professor Ponfick is inclined to believe that the fatal issue in many of the severe cases and the serious symptoms in others which recover are to be explained by the fact that the red corpuscles undergo extensive and sudden disintegration. He leaves as undecided the question as to how far acute uræmic poison may contribute toward the fatal issue. If this theory be true, transfusion would appear to be indicated as a rational therapeutic measure; and Dr. Ponfick recommends that in all urgent cases recourse should be had to this operation.—*Louisville Med. News.*

DIFFERENTIAL DIAGNOSIS OF MULTILOCULAR CEREBROSPINAL AFFECTIONS.

M. CHARCOT.

In the subjoined Table we have written in *italic letters* the symptoms to which greatest importance should be attached.

Multilocular Cerebro-Spinal Affections.

	Tabetic Series.	Multiloc. Sclerosis.	Dissemin'd Syphilosis.	General Paralysis.
Cephalic Symptoms.	Epileptiform Apoplectic Attacks.	*Epileptiform Apoplectic Attacks*	Epileptiform Attacks..	Epileptiform Apoplectic Attacks.
	.....	.....	Par. Hemiplegic Epil'y	
	Vertigo	*Vertigo*	*Vertigo*	*Vertigo.*
	Diplopia, Strabismus	*Diplopia*	*Amblyopia, Optic Neuritis*	Diplopia.
	.....	*Nystagmus*..... ..		Amblyopia.
	Amaurosis.....	Amblyopia, White Atrophy	*Diplopia*	*Inequality of Pupils.*
	Inequality of Pupils			
	Facial Anæsthesia	.....	*Headache, Fixed Pain*	Headache.
	Deafness			
	Meniere's Vertigo			
	Laryngismus	*Embarrassment of Speech*.....	.....	*Embarrassment of Speech.*
	Embarrassment of Speech	*Difficult Deglutition*.....		
	.....	Pneumogastric Palsy.....	Total Facial Palsy	
Visceral Symptoms.	*Gastric Crises*.....	*Gastric Crises*	Non-nervous Crises ...	
	Nephritic Crises			
	Vesical Crises.....			
	Paresis of Bladder	.....	.....	Paresis of Bladder.
	Cystitis			
Spinal Symptoms.	*Girdlepain*	Lightning Pains	*Pseudoneural Pains*..	*Lightning Pains.*
	Hyperæsthesia, Anæsthesis.....	*Plaques*.....	*Spinal Hemianæsthes.*	*Tingling.*
	Incoordinated Movement.....	Incoordination	.....	*Incoordination.*
	Contractures and Trepidations ..	*Special Trembling*.....	*Spasmodic Paraplegia under form of Hemiparaplegia*	*Paresis. Trepidation.*
	....	Spasmodic Paraplegia...		*Special Trembling of Hand.*
Trophic Symptoms.	Eschars	Eschars	.....	Eschars.
	Arthropathies	Arthropathies		
	Fractures			
	Muscular Atrophy.....	Muscular Atrophy	....	Muscular Atrophy.

We should be guided chiefly by the symptoms which are, so to speak, characteristic. Thus, if we observe, in a patient, ataxy with nystagmus we must think of multilocular sclerosis and not of locomotor ataxy (tabetic series), because nystagmus is a valuable symptom of multilocular sclerosis. In the same way spasmodic paraplegia (recognized by the continual trembling movements which are produced when a single blow is struck upon the soles of the feet) is much more characteristic of syphilosis than of multilocular sclerosis, especially if accompanied by *fixed pain*, which always indicates a phenomenon of compression. Ex.: paraplegia consecutive to Pott's disease.—*Gaz. des Hôp.*

THE HYPODERMIC INJECTION OF DIALYZED IRON IN CHLOROSIS.

* * * * * * * * * * * * *

The girl has improved vastly under treatment. She is getting plenty of rest and good food, but she had them both in abundance before she came to us. Her rapid improvement is altogether due, I think, to a new remedy which I am employing in a very novel manner. I refer to the rapid introduction of iron into the girl's system by means of the hypodermic needle. Why has this not been practicable before the present day? Because it has been well-nigh impossible to obtain a non-irritative form of iron for hypodermic use. The tartrate of iron, although one of the mildest forms, is entirely too liable to cause irritation and abscesses. Lately a new preparation of iron, the dialyzed iron, appeared in the market, which, it is claimed, is neutral and non-irritating. It struck me at once that this was just the thing to be used in my proposed hypodermic injection. I have been using this dialyzed iron hypodermically in this case for the past few days, and it has come fully up to its reputation. There have been none of the usual after-effects of iron, such as costiveness and disordered digestion. All these are done away with. I have been giving daily hypodermic injections of fifteen minims of pure dialyzed iron. The iron was diluted at first, but, experiencing no unpleasant after-effects, the assistant has, for the past day or so, been using the dialyzed iron undiluted. For the last four days the girl has had a daily injection of fifteen minims. The scars marking the spots where the needle has been introduced show no sign whatsoever of inflammatory action. To-day the patient shall have an injection of twenty, to-morrow of twenty-five, and on the next day of thirty minims of the pure, undiluted iron. I think we are going to gain in therapeutics by this case. I certainly expect to find a very rapid change for the better in the girl's condition in the course of the next five or six days. I will bring her before you again and report progress on Saturday next. Between now and then I will see that her blood is carefully examined under the microscope by an expert.

[The girl was again brought before the class two weeks afterwards (February 23). She showed the most wonderful improvement. Dr. Da Costa said, "You will remember that when I last brought this case before you the blood-murmurs were distinct, and that there had been no menstrual flow for the space of three months. The daily injection of thirty drops of the dialyzed iron under the skin of the girl's arm has not caused the least irritation. Her digestion is admirable, and, what is most wonderful of all, she has menstruated during the past week. Her strength is so much better that she wants to go right home. You see how the colour is coming back to her lips, gums, and tongue. Another evidence of her very marked improvement is the 'venous hum' which was so loud and marked two weeks ago, is comparatively distant and faint this morning. I am convinced of the most positive and marked improvement in the case. The temperature is normal and steady. She feels well, her appetite is good, her bowels regular, and her headache all gone.

"I consider the case as practically cured.

"Do I think that we should have had such a rapid cure, and one so unattended with constipation and indigestion, if we had given the iron internally? I think not. You see, therefore, how excellent a method that by hypodermic injection is when the stomach will not retain the iron. Where the stomach will retain slight quantities of iron, we might give a little of the drug by the mouth, and the bulk of it hypodermically.

"Knowing how the iron thus introduced has acted here, we might with advantage employ this treatment in cases of pernicious anæmia. I say we ought to retry the use of iron in pernicious anæmia,—try its use hypodermically. The only reason, perhaps, that it has thus far failed to do good in that disease has been because of the great digestive disturbances attending its use."—*Dr. DaCosta, in Philadelphia Med. Times.*

OBITUARY.—Dr. James Blundell died last month at the advanced age of 87. Fifty years ago he lectured on Midwifery at Guy's Hospital. The Count de Kergaradec, discoverer of fœtal auscultation, died lately in Paris at an advanced age.

PLEURISY OF THE APEX.

BY I. BURNEY YEO, M.D., F.R.C.P.

* * * * * * *

In the preceding, and in several other cases of which I have taken notes, there undoubtedly existed a pleuritis of one or other apex, without any consolidation of the lung. I do not wish it to be understood that I think this a common affection. On the contrary, I believe it to be a somewhat rare one; but I am persuaded it is a condition which would be more frequently recognized than it is, were it not for the prevalence of a very faulty manner of examining the chest. I allude to the custom of examining only the upper and anterior part of the chest. Many appear to think that they have sufficiently explored the lungs when they have carefully examined the subclavicular regions, and listened, through the clothes, to both bases. You will certainly not discover a pleuritis of the apex by such a mode of examination, since the friction-sounds, in such cases, are almost invariably limited to the posterior aspect, viz., to the supraspinous fossa or to the upper third of the dorso-scapular region. It is in these situations that you must seek for the physical signs of this affection, and it is usually unilateral. The characteristic symptom in these cases is the cough: in a person in apparently good health (generally a young woman), with no marked fever, with no, or with slight emaciation, with no dyspnœa, with no mucous or crepitant *rales* anywhere to be heard, with no expectoration, you have a persistent, harsh, dry, shallow, incomplete cough; generally jarring and shaking the patient a good deal, so as to produce often painful fatigue of the expiratory muscles and much injection of the face. What is especially noteworthy about the cough is its shallow, incomplete character. It is suddenly cut short without effecting its object, if, as is generally the case, the object of a cough be expectoration. I have never seen a case of this kind in a male, a circumstance which may possibly be accounted for by the fact that the male sex never wear low dresses. It occasionally accompanies or is the cause of asthmatic paroxysms, and, when this is the case, the treatment of the asthma must be combined with the special treatment neceessary for the pleuritis; and that special treatment is continued and repeated counter-irritation, either in the form of a flying blister—a small blister, about the size of half-a-crown, moved about from one spot to another over the supraspinous fossa and the upper third of the dorso-scapular region—or in the form of the strong linimentum iodi. I think I have also seen benefit derived, in some of these cases, from small doses of iodide of potassium. But the ordinary remedies for the relief of cough are not of much avail, but they should not be withheld, as they may moderate the violence of the paroxysms, and so relieve the jarring of the chest somewhat. It is a disease which is very prone to recur.

I have noted cases of this kind now for some years, and, as I have never seen attention called to them, I have thought it might be useful to direct the attention of this Association to the subject; believing that, as they become better known, we shall hear less of "hysterical" and "stomach" coughs, and that, "pleurisy of the apex" will be recognized as a distinct form of pleuritis, with a characteristic clinical aspect.

THE PROGNOSIS IN CEREBRAL HEMORRHAGES.—The following aphorisms are laid down by Dr. Lapponi in the *Rivista Clinica de Bologna*. A cerebral apoplexy whose coma continues for over twenty-four hours must be considered as a hopeless case; this rule, generally correct, has, however, some exceptions. In many apoplexies, accompanied by coma, we observe at longer or shorter intervals before the return of consciousness, several attempts at yawning; if these movements, however, follow close upon each other the prognosis must be decidedly lethal. Apoplexy, associated with paralysis of the buccinators, is very grave, as the seat of the hemorrhage is so close to the medulla oblongata; the presence of labio-glosso-pharyngeal paralysis renders the case still more hopeless. Vomiting coming on thirty to forty minutes after the "stroke" leads us to predict an absolutely fatal termination, and depends, as shown by Lussana (*Manuale de fisiologia*), upon implication of the vagus. Life is threatened by the occurrence of pharyngeal paralysis (vagus) and by polyuria (medulla oblongata), as well as by a marked diminution of the body temperature; if this depression be followed by an elevation of temperature death is certain.—*Clinic.*

RECTAL ULCERATION RESULTING FROM THE CARELESS ADMINISTRATION OF CLYSTERS.

We not unfrequently find in the rectum an ulcer, first mentioned by v. Recklinghausen, whose configuration and locality readily distinguish it from all other known forms of intestinal ulceration. Small, usually round, but frequently conical from below and within, upwards and outwards, with little or no inflammatory deposition about its borders, it is always situated on the anterior walls of the rectum; generally about two inches above the anus, but never less than one or more than three inches. Frequently the mucous membrane only is ulcerated, but the destruction of tissues sometimes extends through the entire rectal wall and in a few cases pelvic cellulitis and abscess result. Fatal peritonitis has on several occasions followed the rupture of such an abscess, and cases have been even observed in which a so-called puerperal peritonitis has been simply the extension of this rectal ulceration.

The form and locality of the ulcer leave no doubt of its traumatic nature, and it seems quite clear that the careless administration of clysters is the immediate cause. In many cases the origin of the difficulty can be traced directly to the time of such injections. It is just at this spot that the mucous folds of the intestine, the prostate, the uterus, or during labour, the descending head of the fœtus, presents an obstacle to the introduction of the syringe by pressing backwards the anterior rectal wall. Should the syringe be now forced forward,—the patient being, as usual, in the horizontal posture—the nozzle may easily wound or even penetrate the mucous membrane. If the fluids be now injected, the sub-mucous or peri-rectal tissues become infiltrated and the further consequences are clear.

In a paper on this subject, Prof. Kœster, of Cologne, (*Correspondenz-Blatt d. ärztl Vereine von Rheinland*) calls attention to the circumstance that Ribes' investigations, as well as the opinions of all surgical authorities, unite in locating the orifices of internal rectal fistulæ at the very same point at which these clysmatic ulcers appear; these fistulous openings are never on the posterior wall and are never more than three inches above the anus. From these facts, as well as the actual history of many of the cases, he argues that a large proportion of fistulæ originate in injuries received during the administration of clysters.—*Clinic.*

SUGGESTIONS FOR THE TREATMENT OF SLEEPLESSNESS.

The following suggestions are taken from an article by Dr. W. A. Hollis, in the *Practitioner*:—One of the most efficient means of inducing natural sleep is by the application of mustard poultices to the abdomen. In cases where sleeplessness arises from natural worry, abdominal flatus, or other annoyances, this remedy is invaluable. Schüler states that large sinapisms applied in this way produce first dilatation and subsequently contraction of the vessels of the pia-mater in trephined animals. They may thus act as do pediluvia and warm compresses to the abdomen, by diminishing the amount of blood in the brain. The same writer says that cold abdominal compresses and the cold-pack produce at first dilatation of these vessels, and subsequently bring about an energetic contraction of the cerebral vessels, which lasts for some hours.

Where the insomnia depends upon brain exhaustion, I have found that the administration of a tumbler full of hot claret and water, to which has been added sugar and nutmeg, is of great value. Both the syrup and the spice, in this instance, are hypnotics, according to Preyer and Cullen. The mixture must be taken just before bedtime. In slight cases of wakefulness (as we all know) the reiteration of certain words sounds mentally, at the same time drawing a slow and deep inspiration between each word, is occasionally sufficient to produce sleep.

When sleeplessness is associated with acid dyspepsia, the alkalies and alkaline earths, especially the carbonate of magnesia and bicarbonate of soda, are very useful. In cases where the indigestion is owing to a sluggish peristalsis of the stomach and upper intestines, a full dose of Gregory's powder, or ten grains of the compound rhubarb pill, will remove the disagreeable epigastric sensation and induce sleep.

The posture of the sleeper is of some importance. Many persons can sleep in their armchairs by the fireside, who court the fickle god of sleep in vain when lying upon their beds, some few hours later. The posture of the dozer and the surroundings of such a fireside nap sufficiently account for his somnolence on

physiological grounds. When sleeplessness results from an over-worked brain and consequent paresis of the vaso-motor nerves, the stimulus of electricity has been resorted to. Althaus recommends this treatment. Two large pads are used with a Weiss' constant battery of from ten to fifteen cells. One pad is placed over the nape of the neck, the other, which can be conveniently made of an old reflector, and covered with chamois leather, is placed over the stomach. The anode is applied to the back, the cathode to the stomach, for about half an hour at a time.

In the wakefulness arising from defective cardiac power, on the other hand, it frequently happens that digitalis, by strengthening the force of the heart's beats, drives the blood into the capillary system more vigorously, and relieves the congestion of the central organs and the anæmia of the extremities. By thus equalizing the circulation, we diminish the necessity that previously existed for an increased flow of blood through the cerebral vessels, and so we promote sleep.

By many therapeutists the bromides of potassium, sodium, ammonium, and camphor are supposed to possess hypnotic properties, but my own experience with these drugs is not confirmatory of such conclusions. These salts undoubtedly act as sedatives on the nervous system, and as such may occasionally induce sleep, but they cannot, I think, be ranked as true "sleep producers."

DANGEROUS COLOURS IN WALL PAPERS.—Mr. L. Siebold, in a lecture on this subject, stated that out of sixty or seventy papers of various colours, blue, red, brown, pink, etc., analyzed by him, ten only were harmless, the rest containing arsenic. There is a popular impression that green papers only are to be feared; but the result of Mr. Siebold's examination should have the effect of rendering householders and heads of families suspicious of some of the most innocent-looking colours. It is reasonable to assume that to the presence of deleterious ingredients contained in certain wall papers may be ascribed many little illnesses of children, where no apparent cause exists for the same, and which sometimes puzzle the medical attendant.

Surgery.

PHLEBITIS.

In publishing the following epitome of a lecture on Phlebitis delivered by Mr. W. S. Savory, F.R.S., at St. Bartholomew's Hospital and published in the *British Medical Journal* for 2nd and 9th February, we can only regret that want of space prevents our transcribing the lecture *in extenso*, for it is admirably illustrated throughout by details of most interesting and instructive cases.

Pathology.—The old distinction between adhesive and suppurative phlebitis is now no longer held. Adhesive phlebitis is no longer recognised, because it is now known that the inflamed vein is rendered solid, its channel is blocked up, not by the effusion of plastic lymph from its wall, but by a coagulation of the blood which it contains. There is thrombosis. Suppurative phlebitis, in the old sense, is now no longer recognised, because we know that the fluid substance found in some cases in the interior of the vessel is not pus, in the proper acceptation of the term, but blood clot, which has softened and become fluid from degeneration: puriform, but not purulent. * * * Then in phlebitis there is inflammation of the coats of the vein; and this is associated with the coagulation of the blood in the canal: thrombosis. The inflammation of the walls of the vein may lead to thickening from lymph, or to suppuration more or less extensive between the coats, which may, and perhaps usually does, extend into the surrounding cellular tissue. * * * * *

Etiology.—First among the causes of phlebitis may be mentioned thrombosis, * * * * and I should say it was one of the principal. (Phlebitis may sometimes, though very rarely, occur without thrombosis; much more frequently the two conditions occur together. We may believe that phlebitis is sometimes a cause of thrombosis, but thrombosis may occur without phlebitis. It is sometimes, or rather frequently the apparent cause of phlebitis; but it sometimes exists for long periods without evidence, either during life or after death, of inflammation.) If then thrombosis is to be

reckoned among the causes, we ought next to inquire into the conditions under which thrombosis is likely to occur. * * * We all know how the blood slowly coagulates in the great vessels after death, and that this change in some cases precedes death. It occurs during the act of dying, more especially perhaps when this process is prolonged or marked by extreme exhaustion, or when it forms the closing scene of long-continued and exhausting disease. And with reference to the question whether a clot has been formed before or after death, the subject is not a very profitable one, and from its very nature cannot admit of a definite answer. The process of dying is oftentimes very gradual. Molecular death is not synchronous with systematic death; and the coagulation of the blood which is the visible sign of its dying, is in the body oftentimes a very ill-defined change. It is more satisfactory to enquire the age of blood-clots; whether these are quite recent, or bear evidence of change subsequent to their formation, in their degree of contraction, their dryness, density, and corrugation; in their colour and construction, whether laminated, or in minute structure fibrous; or—and this is usually most marked in the centre—showing signs of degeneration; or adhering to the living membrane of the vessel which is more or less affected or destroyed. Only one word further with regard to their colour. These clots are generally described as becoming paler with age. But this holds good in one respect only. When clots have formed in the living vessels, and have at first the colour of the blood, undoubtedly, as time goes on, they gradually grow paler. The hematine is absorbed, they come to consist of fibrine only, and this at length assumes a pale yellow or buff tint, and so it may remain. But we all know very well that, after death, clots are frequently found in the cavities of the heart and larger vessels, which are so soft and uniform that we have no doubt they have been rapidly and recently formed—little or no doubt that they have been formed after death—and which are nevertheless very much paler; in fact, almost white. Of course the immediate explanation of this is obvious enough. It results from the mode of their formation, and the difference is due to the relation which the fibrine holds to the cells during its production. But, again, "The great veins are very liable to become obstructed by clots forming in them when the patient is greatly debilitated, and when the circulation is enfeebled, by inflammatory affections, by discharging abscesses, difficult labours and other causes." (Prof. Humphry.) * * But sometimes simple thrombosis appears to be determined by causes which are more purely local. Thus pressure on veins, producing obstruction of the circulation, may lead to the formation of clots. * * * So also, and with far more probability, will injury, such as laceration of the walls, or the presence of adjoining mischief. Thus inflammation or its products may coagulate the blood. But in the last case, the thrombosis is usually associated with and forms part of phlebitis; and to the causes of phlebitis I now return. Phlebitis, then, may result from wounds of various kinds, and other injuries of veins. * * * Phlebitis may complicate gangrene, ulceration, erysipelas and other affections. * * In this class may be reckoned that form of phlebitis which sometimes occurs after delivery: puerperal phlebitis. Then there are causes of a phlebitis, which is more common in men than in women, that may be termed idiopathic. The rheumatic diathesis was formerly supposed to be a predisposing cause; but now perhaps for rheumatism we should substitute gout. * * * You all know what Sir James Paget has written on this subject—gouty phlebitis—and I shall not venture to add any touches to his picture. Then phlebitis often exists in the course of blood poisoning in its various forms. * * * Phlebitis is not common in childhood.

Symtomatology.—The phenomena of phlebitis—its symptoms—are comparatively simple, and for the most part sufficiently clear. The disease often starts with pain—or, perhaps, more accurately speaking, aching—and acute tenderness in the course of the affected vein, which in the majority of instances, I think, at the outset presents to the touch evidence of being plugged. At other times, beyond perhaps an aching of the leg, or other part, the only local evidence of the mischief is œdema.

But this is usually, I think, very significant. The œdema of this affection is firmer, and apparently more generally diffused throughout the limb, than when it is due to simple obstruction or failure of the circulation. The affected limb, or part of it, is enlarged and thickened, but often with comparatively little alteration of shape, the skin pale and tender, and, when the part is grasped, the texture feels uniform and solid. One misses the characteristic pitting, upon moderate pressure, of ordinary œdema. The whole condition of the limb seems one rather of the state in which it is often left after an attack of phlegmonous erysipelas. And it seems to me important to distinguish between these two classes of cases: those which commence with local pain and tenderness, and those that are marked only by œdema; for, in the former case, the superficial veins only are at fault; in the latter, the deeper veins. * * * I have often been surprised in noting with how little constitutional disturbance this affection, even when severe and extensive, is accompanied. Nothing may be observed beyond a trifling and transient rise of temperature, and often even this is absent. There are exceptions, of course, and sometimes grave ones; but, as a rule, in these cases the patients neither show the signs nor complain of illness, and oftentimes one of our chief difficulties is to ensure rest. Of course, as in the rheumatic or gouty form of the affection there may be special indication of constitutional mischief. * * * * *

Prognosis—The great majority of these cases terminate in recovery, and the recovery is usually at length complete. All evidence of any clot or plug in the vein is gradually lost, the vessel becomes natural to sight and touch, and all signs of any obstruction to the circulation through it disappear. What becomes of the thrombus? It is said to be absorbed. Where, and by what means? That we hardly know. What change does it undergo previous to disappearance? If much time elapse, it shrinks and contracts, and probably degenerates after the fashion to be noted presently. Often, however, the vein remains permanently thickened. * * * In the most of these cases there is probably only a partial restoration of the current through it. A corrugation and apparent thickening of the vein wall, due to contraction of a clot attached within, must not be confounded with the condensation and rigidity of the vein wall, which is due to inflammation. In the former case the vessel can be restored to its natural state by injection. (Callender—System of Surgery) * * * * We may thus have in the veins clots of all degrees of duration and obstruction. So too in the effect produced upon the limb. There may be no perceptible œdema throughout, or the whole limb may be converted into a huge, unshapely appendage. When the oedema is considerable, or, indeed oftentimes even when comparatively slight—as we should expect from its solidity—it only very slowly disappears. * * * Nay, sometimes the limb never after recovers its natural size or shape, for the tisssues remain permanently infiltrated and hard. A varicose state of the surrounding veins is not often seen, in consequence of thrombosis. They are far more frequently dilated, tortuous and overgrown, from obstruction due to other causes, as from the pressure of a tumour. This may be because the larger veins are hardly ever permanently obstructed by thrombosis. There is the widest range in the extent to which the veins may be plugged. The whole mischief may be within an inch, or it may extend throughout large tracts of the venous system, spreading in all directions from the vessel first affected, but especially towards the heart. * * The clot once formed may change in another way. It may undergo degeneration becoming liquefied and broken down generally first in the centre. * * * And what is the consequence of this diffusion of liquefied clot into the blood? When blood clot breaks down, and its fragments or *débris* mingle with the blood, that infraction of distant vessels results there can be no doubt. And it can be easily understood how this embolism will vary in its character and effects. If the detached fragment be large and coherent, a large artery, such as one of the chief branches of the pulmonary, may be plugged, and instant death may be, and has often been, thus produced. If the clot has been so softened as to become puriform before its diffusion, then results capillary embolism in the lungs or elsewhere; and not immediate death, but

severe disturbance, provoking very grave consecutive mischief, but still, at first local; and leading to changes in the parts affected—to inflammation and suppuration and perhaps gangrene—to which different observers have applied different terms. But with all this, not necessarily, or even commonly, I think, pyæmia. * * * * * I can well remember, years ago, when the doctrine of Virchow was dominant, with what anxiety these cases of phlebitis and thrombosis were watched; how from hour to hour pyæmia, with all its terrible phenomena, was expected to supervene. But now this is, for the most part, changed. We watch anxiously for signs of embolism, and we do all we can, by enforcing rigid rest, to guard against its occurrence; but we do not anticipate pyæmia. Still, although even the occurrence of embolism in any of its forms is exceptional, I would earnestly advise you always to act as if it were imminent in every case. Fortunately for his peace of mind, the patient does not see this Sword of Damocles, but you must never forget that it hangs over him.

Pyæmia, then, as a consequence of phlebitis, is so exceptional that we hardly think of it as among the dangers to which our patient is exposed. The possible or probable occurrence of embolism is a source of far more immediate anxiety, but even this accident is comparatively rare. The majority of cases of thrombosis and phlebitis escape without it. The consequences of this affection are usually from first to last local—that is to say, limited to the vein or veins affected, and to the limb in which it occurs. Any direct evidence of disintegration of the clot within the vein is, for the most part, wanting. As a rule, all we are able to trace is the very gradual disappearance of the signs of thrombosis. The vessel, which at first is tender, distended, and solid, gradually becomes less sensitive to the touch, then reduced in size, but withal firmer and more cord-like; then, week by week, this solid passive cord becomes less and less distinct. The cases are very exceptional in which it remains completely and permanently plugged. No doubt, far more frequently the whole of the clot at length disappears; but, perhaps, in the majority of cases, a portion of the clot remains, either as a thin or thick layer lining the interior, or in the form of fragments shrunken to one side and adherent to the walls. For all practical purposes, then, recovery is complete; and, therefore, in these cases, the prognosis, as a rule, is favourable. I have, however, already mentioned that, where there has been any considerable œdema of the limb, this condition is very apt to linger, and the leg may thus remain cumbrous and troublesome for very many months; and I have already mentioned, too, that, in the gouty form of the affection, there is an especial liability to relapse, and consequently oftentimes much disappointment in the progress of the cure.

Almost the whole of the treatment of phlebitis is described in one word—rest; rest in the horizontal posture, or with the limb affected somewhat raised. When the liability to this affection is great, the most trivial causes seem to determine the formation or extension of clot. It is often started by extra exercise—an unusually long walk or slight overexertion. Even very moderate pressure on a vein, as from one leg resting on the other, will sometimes start it. And, after it has begun, the chances are that the mischief will spread to some extent, do what you will. But absolute rest is the best safeguard. For it is not only of chief efficacy in controlling the extension of the disease, but no other means are known which can be reckoned of any material value in lessening the chance of any of those accidents which wait upon phlebitis. Drugs may be employed when there are any special indications for them. When, for example, there is any evidence of gout or rheumatism, much good may come of physic, or when there are signs of other forms of constitutional disturbance, such as pyrexia. In all circumstances, measures of general hygiene should be carefully attended to. The patient should lie at rest in air as pure as possible; and, in view of the tediousness of these cases, it is often well to have him soon carried to some place where this condition can be best fulfilled. We know how phlebitis is apt to complicate the convalescence of fevers, and cases can be mentioned in which thrombosis or an attack of phlebitis has followed exposure to emanations from foul drains, in such a way as to suggest that some poison mingling with the blood, instead of continuing

to disturb the whole mass, has coagulated a portion of it, and has thus been separated from the rest.

Neither can very much be done in thrombosis or phlebitis by local measures. The application of leeches in the course of the vessel has gone out of fashion. The relief they give is but temporary, and sometimes the irritation of their bites will prove mischievous. When the pain is very severe, it can be controlled by the local or general use of opium or morphia, or of something else. Otherwise, I think the most grateful application is, in the early period, a very strong lotion of acetate of lead; one part of the liquor plumbi to seven or eleven or nineteen of water. But, perhaps, the application of cloths wetted in simple water is nearly as good. Bandages at first are not advisable. They heat the limb, and otherwise increase the discomfort. But, when all signs of active mischief have subsided, when little or no tenderness remains, and the œdema is the chief trouble left, then bandages properly applied are undoubedtly very useful. Still later on, shampooing and baths of various kinds may be tried; but these should only be thought of when all risk of disturbing clots has long passed by. The baths of Aix les Bains, or Wiedbad, or the mud-baths of Marienbad may be suggested, and evidence is not wanting of brilliant cures effected by their means.

But, given a case of phlebitis, and it is not difficult to describe in general terms the prospect At the best, it is likely to last long and prove tedious. It is not without risk to life; but a fatal issue, even from its several causes conjointly, is comparatively rare; and as time goes on, these risks diminish. But, if the patient would reduce these several risks to their lowest value, and otherwise accept conditions most favourable to his recovery, he must make up his mind to lie still for a long time.

A German paper gives a test for watered milk which is simplicity itself. A well-polished knitting-needle is dipped into a deep vessel of milk and immediately withdrawn in an upright position. If the sample is pure, some of the fluid will hang to the needle; but if water has been added to the milk, even in small proportions, the fluid will not adhere to the needle.

TREATMENT OF CANCERS AND ADENOMATA OF THE BREAST BY COMPRESSION.

At the Session of the French Academy of Sciences of the 4th of February, Dr. E. Bouchut advocated the treatment of tumours of the mammary gland by compression by means of vulcanised caoutchouc and cotton batting. He related the particulars of a case in which a satisfactory result followed this treatment. The patient was thirty-nine years of age and had noticed the tumour six months previous to the time when she came to M. Bouchut. She had consulted three eminent physicians all of whom advised her to submit to an operation. This she was unwilling to do, and readily consented to the advice of M. Bouchut to wear a cuirasse of caoutchouc over a very thick compress of cotton batting. The breasts were not very large, the skin not involved, and freely movcable over the tumour, which was about the size of a small hen's-egg. There were three small, movcable glands to be felt in the axilla, each about the size of a small nut. A rather thick band of caoutchouc from sixteen to twenty centimetres broad and long enough to almost surround the chest, with shoulder straps to prevent its slipping down and fastening behind either by lacing or a double row of buttons, was very tightly applied over four thicknesses of cotton batting sprinkled with lycopodium, the latter being used to prevent itching. This was left on a week, at the end of which time and at like intervals during the year it was removed and reapplied over fresh layers of cotton batting. At the end of two months, the tumour had ceased to be painful and had commenced to shrink and flatten. No respiratory difficulty resulted and sleep was undisturbed. At the end of six months the tumour had diminished half and the glands in the axilla equally compressed were much smaller. At the end of a year the tumour had almost disappeared, and the axillary glands were reduced to a rudimentary state. After fourteen months' compression the tumour had entirely disappeared and the axillary glands, were the size of a small pea. Both breasts were equally atrophied, flattened and almost absorbed, so that the ribs could be readily counted in the mammary region.—*Gazette des Hôpitaux.*

CLINICAL LECTURES ON FRACTURES

BY FRANK H. HAMILTON, M.D.

I shall have to speak of certain peculiarities which characterize fractures of the shaft of the femur in children, and which make them different from the same kind of fracture in the adult.

In the first place, then, such a fracture in the child is always transverse, while in the adult, you will remember, it is always oblique, and not infrequently to an extremely marked degree. Secondly, it is not only transverse, but it is of a denticulated character. It affords a good example of what is known as the "green-stick fracture," a name derived from the resemblance of the ends of the fragments to the denticulated surfaces of a freshly-broken stick, such as I show you here. This denticulated character, however, is not so marked in fractures of the femur as in some others, those of the clavicle and radius, for instance; and the several degrees of green-stick fracture, I may say, would be very well represented by fractures of the clavicle, radius, and femur respectively. While in fracture of the clavicle in the infant the bone is rarely broken off entirely, this is commonly the case in fracture of the thigh. In this respect it resembles that in the adult, the fragments sometimes slipping quite past each other. Three degrees of green-stick fracture have been described:

In the first the bone is bent, but resumes its original shape. This was very fully illustrated in a series of experiments upon the bones of animals, which I published a number of years ago.

In the second the bone is bent and remains in this condition.

In the third the bone is not only bent, but broken off, and the fragments remain separated.

So much for the pathology of the accident.

These are the only indications preseut:

First. To prevent bending.

Second. To prevent shortening.

Not infrequently the second indication does not exist at all, there being no danger of shortening, on account of the transverse character of the fracture and the easy adjustment of the fragments. In any given case the essential question to ask is, How shall we prevent bending? and this has always been the stumbling-block of surgeons.

As in almost all other fractures, of course, some sort of splint has been resorted to, but the trouble here with splints and the bandages necessary to keep them in position is, that they make pressure upon an exceedingly delicate skin, and that underneath this tender skin is a very large amount of adipose tissue, which yields very readily to any compressing force. As a consequence, the circulation is greatly interfered with, and long before the end desired (the union of the fragments of bone) is accomplished this interference becomes so serious that the most disastrous results are liable to follow.

Another reason why sloughing is apt to occur is, that the urine soils the dressing when the child is too young to understand the situation, and this, of course, causes excoriation. Hence we find that almost all cases of sloughing occur in children, adults not labouring under the same disadvantages. There are other reasons, also, why it is so difficult to treat fractures of the femur satisfactorily in children, and the following summary includes them as well as the reasons just mentioned:

1. The delicacy of the skin.
2. The abundance of fat.
3. Excoriation from urine saturating the dressing.
4. The fact that the limb is so short (its long and its short axes being almost of the same length) rendering it very difficult to get any purchase for splints.
5. The restlessness of children, who are continually tossing and tumbling about, and so are almost certain to disarrange any form of dressing that may be employed.

Since these difficulties are so numerous and serious, then, how have surgeons been accustomed to overcome them? I can give you very little information on this subject, for you may search surgical literature almost in vain for it. The books do not say much about it, for their authors have found it no doubt a very disagreeable subject; and most of them make no distinction between fracture of the femur in the child and in the adult. Some authorities have treated their little patients by laying the

limb over an inclined plane; but this method is of no use whatever. The child invariably slips down out of position, and the fragments consequently become displaced. If you attempt to remedy this by elevating the hips, you are apt to drive the limb up, and so displace the fragments, and you may consider yourself extremely lucky if you should happen to keep the child in some one position for twenty-four or forty-eight hours just at the critical time when union is on the point of taking place. Fractures usually unite rapidly in children, and it may be that in some such brief period as this sufficient union between the fragments may be secured to withstand the strain to which they will be subjected in the future by the constant movements of your restless patient.

Again, plaster of paris has been used more recently; but anybody who has employed it once will be scarcely likely to try it a second time. I am very sure that it must be a bad plan, and a little reflection will convince you why this should be the case. The plaster must necessarily get wet with urine in young children, and as certainly as it does it will cause excoriation. But even if this could in any way be prevented it would be exceedingly apt to cause excoriation, and even sloughing, as it not infrequently does in the adult. If there is danger of sloughing in the latter, this danger is infinitely increased in the case of the child, on account of the necessity of applying the bandage more tightly in children.

I have, then, only added to and improved upon some of the plans adopted by others. The essential feature of the treatment is a long double splint, but I will describe the whole appareil in detail. In the first place, after the adjustment of the fragments, the fractured thigh is dressed with four coaptation splints, precisely as in the adult, and to render the demonstration less tedious they have already been applied in the case of the child who represents the patient for us to-day. Next a long splint, very carefully padded, is placed on the outside of the limb (extension having first been made), and this is secured by rollers. As it is a troublesome matter to keep the limb straight, and this is so essential an object, the splint must be made long enough to reach to the axilla, and the upper portion of it should be made fast by additional rollers passing around the chest. This is designed to keep the axis of the thigh and leg (including the fragments, of course) in a line with that of the body; and the indication will be fulfilled in this manner, provided there is no overlapping of the fragments or tendency to shortening. If this is the case, it will be necessary to make extension by means of the weight and pulley, as in the adult (though a traction-force of only two or three pounds is required), and counter-extension by means of a perineal band, only moderately tight, secured to the long external splint. The weight of the body cannot be relied upon for the latter purpose in children, as in adults, and the perineal band answers every purpose perfectly well. This extension and counter-extension are required in perhaps one case out of four. Another very important feature of the apparatus is a second long splint, which is secured to the sound limb and also passed up to the axilla, and the object of this is simply to keep the child quiet, for otherwise it would be constantly tossing about, to the imminent jeopardy of the straightness of the fractured thigh. Great care should be taken to have the knee firmly secured especially, for if it is not the patient will be sure to work the limb loose. Finally, the dressing is completed by making the lower ends of both the long splints fast in a wooden cross-piece. It will be found in practice that children submit with quite good grace to the inevitable, and they are usually perfectly contented after the appareil has been on them for two or three hours. When the bed has become soiled by urine or fæces, the child and the whole apparatus can be lifted on to another one with the greatest facility, and thus the bed can be changed as often as is necessary.—*Philadelphia Med. Times.*

Royal College of Physicians of London.—At the ordinary meeting of the College on January 30th, exemption from re-examination in Chemistry and Materia Medica was recommended by the Council in the case of candidates for the licence of the College who had previously passed in those subjects at an University in the United Kingdom, in India, or in a British colony where the degree or a licence to practise was granted.

THE LOCAL USE OF SOLUTION OF QUININE IN CHRONIC IRRITATION OF THE BLADDER.

BY T. W. NUNN,

SURGEON TO THE MIDDLESEX HOSPITAL.

Some few years since (summer of 1872) I commenced, in the wards of Middlesex Hospital, the local employment of quinine as an antiseptic after operation, in a case of necrosis of the tibia. For the removal of the sequestrum in this case it was necessary to clip away new bone to the extent of some inches from the anterior aspect of the shaft of the tibia. Of course, after the sequestrum, corresponding in length to the bone cut away, was lifted out, a long trough was left, in which the pus accumulated, and became fetid.

My then dresser, Mr. G. Karop, suggested quinine as a bactericide under these circumstances, in answer to my appeal to be furnished with such an agent. I appealed to Mr. Karop, as he had just returned from the Vienna school, and was, moreover, especially qualified, by his histological and microscopical labours, to respond to my request.

The result from the local exhibition of the quinine was most satisfactory. We used a solution of the disulphate of quinine, one grain to the ounce of water, the smallest quantity only of sulphuric acid that would suffice to complete the solution of the alkaloid being added. I have since made frequent use of the solution of quinine as a local application. It appears to me to be especially efficacious, either alone or combined with the bichloride of mercury or the chloride of zinc, in certain forms of soft chancre.

The most striking result, however, is obtained by injecting the solution of quinine into the bladder in those cases where the urine is loaded with pus, and is *intensely offensive;* the bladder being irritable, the desire to urinate recurring every hour, or more often, for example, where the bladder only imperfectly empties itself, or when the continual use of the catheter is called for in enlarged prostrate, or in atony of the organ. Within the past few days I have been informed by a patient who has habitually had recourse to the catheter, the urine voided being alkaline and highly offensive, that the injection of the quinine solution has been followed by such an abatement of the sensitiveness of the neck of the bladder that the desire to micturate comes on now only after the lapse of six or seven hours, in place of after the lapse of every hour or hour and a half.

The following is the method of using the quinine as a bladder injection:—Dissolve twenty grains of disulphate of quinine in twenty-five ounces of water by the aid of a few drops of dilute sulphuric acid or a teaspoonful of *common brown* vinegar. Of this solution inject into the bladder two or three ounces, and let it remain.

REMOVAL OF FOREIGN BODIES FROM THE AUDITORY CANAL.—Among the various means suggested for the removal of foreign bodies from the ear, I see no mention, either in the JOURNAL or in text books on the subject, of a simple and harmless plan which I have used lately with success. Some months ago, a boy aged 12 was brought to me with a round smooth white pebble in the auditory canal. It could be plainly seen, and had been there for two days, during which time, I was told, repeated efforts had been made to remove it; but their only result was to cause pain, conjestion, and swelling of the mucous membrane, which firmly grasped the foreign body, and prevented the possibility of passing any instrument beyond it. I syringed the ear for some time without any good result; and, as his friends were very anxious to have other means tried, I did not like to send him home unrelieved. Having at hand a bottle of the cement known as coaguline, which seems to be a solution of isinglass in acetic acid, I prepared a piece of soft pine-wood, about as thick as a No. 8 catheter, by hollowing the end so as to cause it to fit accurately on the convexity of the pebble. Having now melted my cement by placing the bottle in hot water, and having dried the foreign body with cotton-wool, I covered the hollow end of the piece of wood with the cement, and applied it to the pebble. After waiting for ten or twelve minutes for the cement to set, I made gentle but steady traction, and had the satisfaction of withdrawing the stone firmly cemented on the end of the wood. This plan will obviously be more suitable for round smooth bodies which fill the canal than for small angular ones; but the former are the ones most difficult to remove by any other procedure.—GEO. GRAY, M. D., Castlewellan, Co. Down.

Midwifery.

THE VOMITING OF PREGNANCY AND ITS TREATMENT.

BY M. O. JONES, M.D., OF CHICAGO.

WITH NOTES OF A CASE.

BY J. MARION SIMS, M.D.

Believing that the vomiting of pregnancy is a reflex phenomenon, is it not strange that nearly all our efforts to relieve it have been mainly directed to the stomach, the helpless sufferer from the fault of another organ? Why not direct our curative or corrective measures directly to the source of mischief? Impressed with the correctness of this idea, I decided to put it in practice in the first case that might come under my care.

It has been now six years since my first opportunity of testing this idea, and within that time I have treated five cases, and in each case a very gratifying result ensued. I thought by exciting an irritation or superficial inflammation of the os and cervix uteri, the reflex nervous phenomena would be concentrated at the point of irritation, and thereby relieve the stomach.

To the first patient I applied the solid nitrate of silver to the os uteri only. The benefit was very noticeable within twenty-four hours. Being somewhat apprehensive, I applied the caustic rather sparingly, and in a few days applied it again, obtaining still greater relief. I used it a third time, but suspect the third application was really unnecessary. The patient remained free from sickness or vomiting to the end of gestation. To the second case the caustic was applied twice only. Improvement followed the first, and complete relief the second, application. The third patient required but one application; it was used more freely than in the preceding cases, and applied to the os and a portion of the cervix uteri. The fourth patient needed but one application, and this was one of the most harassing and persistent cases of vomiting that ever came under my care. The stomach rejected everything taken into it, and the patient grew feeble and became so emaciated that she was scarcely able to leave her bed. The caustic in this case was very freely applied to the os and vaginal cervix. The relief obtained was beyond my expectation, for it was almost immediate. She vomited only twice or thrice in the thirty-six hours following, and no more after that time. She was able to retain food; assimilation was good, and she gained rapidly in health, strength, and flesh. The fifth case was one in which the vomiting was not so frequent, but quite as persistent. In this case, in addition to the vomiting, the abdomen was quite tender—as I supposed from the violent retching. The caustic in this case was applied twice before entire relief was obtained.

In all these cases, before resorting to the caustic, I had faithfully tried, and for some time, remedies which are usually resorted to in such cases, without any benefit whatever in the fourth and fifth cases and only temporary improvement in the others. These were all cases of first pregnancy, except the second one. In the first and second there was slight erosion of the mucous lining around the os; in the others none whatever, all three being perfectly healthy in appearance.

NOTES OF A CASE BY DR. MARION SIMS.

Madame de C——, aged twenty-two, married at sixteen, tall, 175lbs. in weight. Has one child four and a half years old. During her pregnancy she suffered from nausea for two months or more. Did not nurse the child, and conceived again a year after its birth. Nausea began with conception and ended with a miscarriage in two months at Arcachon in 1874. In 1875 conceived again, nausea followed immediately and again ended in a miscarriage at the end of the second month in Havre. In 1876 she again miscarried, in New York, at the end of the second month, from prostration induced by the nausea. First saw her October 24th, 1877; gave me a history of her miscarriages, and feared she was again pregnant, the nausea having returned during last ten days. Ordered bismuth to be taken by day, and bromide of sodium at night. There being no improvement on the 29th I ordered oxalate of cerium. Four days later sent for me; had been in bed ever since my last visit; was much prostrated from nausea and starvation. She imagined herself worse on alternate days, so I

ordered quinine. This produced vomiting and purging and aggravated her condition. Then gave her bromides without effect, and determined to try local treatment. There was right lateral anteflexion, os tincæ granular and covered with a glutinous leucorrhæal secretion. A case for Graily Hewitt's pessary treatment, or Copeman's plan of forcible dilatation of os and cervix. Thought of trying Dr. Jones's plan. Cleared away the discharge and applied a solution of nitrate of silver (ʒ ij to ʒ j) freely over the whole surface of the cervix till it was well whitened, and stopped all other medication. On the next day Madame de C—— was sitting up in bed, a marked improvement having taken place. She had had a good night's rest, and had taken a liberal breakfast : a show of blood followed the application of nitrate of silver. At the end of five or six days, there was slight nausea, and the neck of the womb was penciled with pure carbolic acid. On the next day she said she was perfectly well. On November 19th she reported that she had occasional nausea and she stated that she had never felt so well before during the first two months of any of her pregnancies.—*Lancet.*

Hypodermic Injections of Ether for the Convulsions of a Teething Infant.—In *La Tribune Médicale* for January 6th, 1878, is a paper by Dr. Gellè on this subject. After referring to this mode of administering medicines of various kinds, he details the following case:

An infant, aged seven and a half months, who was just cutting the lower incisor teeth, began suffering with frequent and obstinate vomiting, diarrhœa, and subsequently convulsions. During the intervals when the child was not convulsed, it was comatose, and hence it was impossible to administer remedies by the mouth, even if the vomiting had permitted it. There was high fever, and pressure on the abdomen evidently caused pain. The face was pale, and wore an expression of suffering. The pulse was quick and respiration labored. There was evidently a subacute "catarrhal state." The convulsions were caused by the general trouble of the organism. There was also a slight pneumonia which was just developing. The chief indication was first to arrest the vomiting and convulsions; in the second place, to reduce the temperature by bringing on free perspiration; and finally, to lessen, as far as possible, the pulmonary trouble.

Ten drops of sulphuric ether were injected slowly in each thigh of the little patient, who seemed to feel the prick of the needles, though it paid but little attention to it.

The convulsions did not appear again after the injection,—at least the only two which occurred (ten hours after) were so slight as scarcely to deserve the name. The vomiting ceased entirely and the little patient fell asleep.

A slight pneumonia of the apex of the right lung occurred, which was followed by an obstinate bronchitis; but after some time, the child's health was entirely re-established. No local trouble occured at the points of injection.—*Virginia Medical Monthly.*

Physiological Means of Preventing the Presentation of the Shoulder.—M. Pinard (*La Tribune Médicale*, Jan. 13th, 1878), after calling attention briefly to the danger, both to mother and child, in shoulder presentations, states, for some years past, he has been endeavouring to determine the cause of such faulty presentations, with a view of preventing them. He claims that the cause lies in the too great laxity of the abdominal walls; and in proof of this, he calls attention to the fact that shoulder presentations are seven times more frequent in multiparæ than in primiparæ. The cause does not reside in an original malformation of the uterus. If this be true, he continues, by giving to a woman, whose abdominal walls are too lax, a band to wear during the latter months of pregnancy, the abnormal presentation of the child will be prevented. He states that in more than twenty cases, when shoulder presentations were recognized before labour set in, the malpresentation has been rectified by the band, so as to cause the vertex to present. In only two cases where this means was resorted to, did it fail, and then version had to be practised. In conclusion, he says that in every case when the head is not in the pelvic excavation during the last month of pregnancy, every means should be adopted to bring it there.—*Vir. Med. Monthly*

Hospital Reports.

HOPITAL DE LA PITIÉ.

BY M. VERNEUIL.

On Purulent Arthritis Consecutive to Lymphangitis.

We have rather frequently observed that lymphangitis of the lower limb has been followed by very serious, articular troubles in the knee. There certainly is between these facts a relation of cause and effect which has not yet actually and clearly been made out. Billroth has observed that when there has been suppuration in the course of the lymphatics the articulations of the same limb have been seen to contain pus, but he has not sought the cause of this. I have observed, in a cachectic man, suffering from ulcerations on the feet, a lymphangitis followed by induration and abscess of the lymphatic tracts: I successively opened these various abscesses; one of them appeared to have opened into the kneejoint, and determined a purulent arthritis which was rapidly fatal. I have also seen, in consultation, a young girl of twelve years who was affected with lymphangitis consequent upon an excoriation of the great toe. The knee joint was also affected without there having been any abscesses in the lymphatic tract. A purulent arthritis with abscess and fistulæ was developed and proved fatal at the end of three months of suffering. At the *Hôpital Lariboisière*, I also saw a cachectic man affected with a contused wound of the foot which was followed by a vast slough; a lymphangitis declared itself, and there was also communication with the knee joint and death. It is worthy of remark that these communications were always made by abscesses on the *inner* side of the knee.

Here lastly, in this ward, bed No. 22, is lying a man, a railway employé, with varicose veins, who also presents the same phenomenon: hydarthrosis consecutive to a lymphangitis produced by an excoriation of the foot. An abscess threatens to form and open, not on the inner side but below the knee, on the surface of the triceps, which fact allays any apprehension of communication of pus with the knee. But there is hydarthrosis. At the elbow, hygroma often occurs when there is lymphangitis of the arm. As for the knee, it is extremely desirable to watch very attentively abscesses which form on its inner aspect, and to open them very early.

In order to explain this relation we may invoke the disposition of the lymphatics which enter serous pouches in the subcutaneous connective tissue which may serve as channels of communication with the articulations. We may also suppose that there occurs in the lymphatics and articular serous membranes, a *centrifugal* lymphangitis, analogous, for example, to the erysipelas which, in operations upon the breast is propagated from that region towards the extremities of the fingers. Finally there is an obscure point here which is connecctd with the general study of the lymphatics, and which deserves to be observed and studied.—*Gaz. des Hôp.*

CLINIC OF PROF. DaCOSTA.

PENNSYLVANIA HOSPITAL.

Chrysophanic Acid in Chronic Psoriasis.

James B., æt. 27, a teamster, never had syphilis. Was in this Hospital from 24th of October last until November 14th. He had, when admitted, a chronic disease of the skin, which he said had lasted more than ten years. The eruption first appeared during warm weather upon his scalp, and gradually spread to his legs, arms, and body. It was scaly from the first, appearing originally in the form of a papule, and then spreading and scaling, the skin becoming thickened, fissured, and raised in its progress. It itched so badly as to prevent him from sleeping at night.

When I first saw him he had been using various remedies, including arsenic, internally and externally, the alkaline green soap, so much used by Hebra in Vienna, with but slight success. I determined at once to use chrysophanic acid, and the effect was most striking, as the following note made of his condition when he left the Hospital will show: "The skin was decidedly better, and shows nearly a normal surface. Treatment has been followed by very marked results. The skin upon his chest and arms has nearly recovered its normal colour, and the skin feels softer every-

where, and there is little tendency to scaling. Patient considers himself almost well."

He comes back this morning; although not so well as before he left, he is still conscious of great improvement, and returns to have the same treatment pursued.

The following will be the details of treatment. For the purpose of cleanliness he shall take a warm bath every morning, remaining in it fifteen minutes; the water to be made slightly alkaline by the addition of half an ounce of carbonate of potassium; and the following ointment—

Acid. Chrysophanic.....ʒss.
Ung. Simp.....ʒi.

To be rubbed in thoroughly at night.

Diabetes Insipidus Cured by Ergot.

The next patient, Joseph H., æt. 21, was shown to you once before during the height of his malady. He had a family history of phthisis, his mother having died with pulmonary consumption, and his father of some acute disease following a cold. He had never received any injury to the head, and had never been sunstruck. Was uniformly healthy until May last. At that time he simply noticed that he was passing a good deal of urine. Since then, up to the time of his admission, he had fallen off rapidly in weight. He had also complained of irritability of the neck of the bladder, but nothing had been found to account for the irritation. On admission we found he was passing from eight to ten pints of urine daily, although at the same time he only drank five to six pints of fluids (including milk, tea, and soup). The urine was acid, of low specific gravity 1.005, contained no particle of sugar, and was entirely free from albumen. We therefore recognised it as a case of diabetes insipidus, or polyuria, as it is sometimes designated. This disease is extremely difficult to eradicate.

We began our treatment December 1st, and directed him to take the fluid extract of ergot in one drachm doses three times daily; subsequently increased to four doses; and for five days he took six drachms in the twenty-four hours. The effect was most marked. The amount of urine rapidly and steadily fell to five pints, and then to three pints; but before he had got down to the normal quantity we reduced the ergot, and afterwards stopped it altogether and placed him on a little peppermint water, not so much, however, for its stomachic as for its mental effect. He has now had no ergot for two weeks, and I can give you the gratifying information that the effect has been permanent. Since his recovery he has undergone an operation for phimosis, and now the irritability at the neck of the bladder has entirely disappeared, and he leaves the Hospital perfectly well. We shall direct this patient to take half an ounce of cod-liver oil two or three times daily as a general nutrient.

Chronic Pleurisy. Removal of a Large Effusion by Jaborandi in less than Three Weeks.

John L. C., a weaver, æt. 23, was in good health until last summer, when he was exposed to wet at the seashore, and since has been subject to occasional pain in the left chest, and a slight cough, dyspnœa and mucous expectoration tinged with blood. He went into "Episcopal Hospital" five weeks before his admission here. At that time he had daily chills. His chest was then aspirated and five pints of clear serum drawn off. He improved after this and left the Hospital. His former symptoms, however, returned, including the chills, and he came to our ward five weeks after he had been aspirated. I found effusion in left chest, displacing the heart to the right and causing much suffering. I was unwilling to aspirate again, because in chronic pleurisy after aspiration the fluid is apt to return, and after several aspirations the fluid may become purulent. I therefore gave him a drachm of the fluid extract of jaborandi four times daily. The effect was as follows: chills passed away, temperature was reduced from 101° to normal, the pulse and respirations are almost normal. As regards physical signs dullness has disappeared except at lowest part of left chest. I can everywhere hear the respiratory murmur, although it is feeble at lowest part. The effusion has therefore almost disappeared. I think the

relief obtained is permanent; for if you can remove a fluid by medical treatment it is generally not likely to return. During the treatment the patient was sweating profusely, and I may say that the larger quantity of this effusion passed away by the skin. (It should be added that the case progressed to a perfect cure, and the patient was discharged January 19th, 1878.)

Arsenic in Eczema Capitis.

From *Dr. E. F. Walker's Clinical Reports of Demilt Dispensary.*

John M., æt. 7 months. Face and hands covered as by one scab. Mother said he was taking a pint of condensed milk a day, but vomited constantly after being fed. Bowels constipated and child very fretful. I ordered one-third the amount of milk, and directed mother to dilute it more. Also ordered one drop of Fowler's solution of arsenic three times a day, and one grain of calomel at a single dose; locally I used nothing, but directed child to be watched and prevented from scratching its head or face.

In a week there was great improvement. The diseased surface, instead of being moist and bleeding, had dried up, and in many places the scabs had fallen off, showing a sound surface beneath. I then ordered the arsenic to be increased to five drops a day, and one grain of calomel once a week. I have increased the Fowler's solution until he has taken three drops three times daily. In four weeks the child was cured. I have had a number of these cases both in Dispensary and private practice, and have found arsenic act so well that I look upon it as a specific.

Carron Oil in Anal Fissure.—This painful affection, which has heretofore resisted almost all forms of treatment by local applications, has been successfully managed by Carrère, who states in *Annales de la Med. de Gand* that he applies the mixture of lime and water and linseed oil, so commonly used in burns. This is done several times daily and in all cases he has obtained a cure in at farthest, eight days.—*Allg. Med. Cent.-Zeit.*, No. 2, 1878.

Original Communications.

To the Corresponding Editor of the Canadian Journal of Medical Science.

THE BILL TO AMEND THE ONTARIO MEDICAL ACT.

Sir, —The comments on the provisions of this Bill which appeared in the March number of your Journal are fair and satisfactory, with the exception of the remarks which you make upon section iii. In condensing the Ontario Medical Act into the shape in which it appears in the Revised Statutes of Ontario, which condensation has been done with great spirit and fairness on the whole, the fact was overlooked by the revisers, that the Act of 1874 was not an original Act, but a very slightly altered renewal of the Act of 1869; and in view of this, the interpretation to be put upon section xxii., subsection iii., was that which was embodied in section iii. of the Bill to Amend the Ontario Medical Act; and this is the opinion of the most eminent legal authorities to whom the matter has been submitted. This view of it, moreover, received the unanimous assent of the Executive Committee of the Council, under whose instructions the measure was drawn up and laid before the Legislature.

It is matter for regret that the Session of the Ontario Legislature closed before this Bill could be passed through all its stages; but there is little doubt that a similar and improved measure will be carried into law at the next Session of Parliament.

As all claims upon the public treasury must originate with the Government, it becomes necessary to take out of our Bill the clause referring to the payment of medical witnesses in criminal trials; but we received the assurance of the Ontario Government that next Session a measure will be submitted to Parliament making provision for this purpose, and almost in the same terms as our section viii.

I am, Sir, yours faithfully,

D. CAMPBELL, M.D.,

Member of Parliamentary Committee of Executive Committee, College of Physicians and Surgeons, Ontario.

Translations.

From *Le Progrès Médical.*

Remedies recently recommended in Pulmonary Phthisis, Koumys, Glycerine, Creasote.

The number of *Le Progrès* for 26th January contains an editorial on this subject, from which we make the following extracts. Dr. De Boyer says, "It has not been the object of the observers, whose suggestions we are about to compare, to find a specific for phthisis, but they have all sought to modify the course of denutrition which is at once the characteristic and the danger of tuberculosis."

Koumys.—"The employment of koumys in phthisis is not recent in France as appears to be supposed, but it is only since its propagation amongst us by M. Landowsky that its use has become generalised. As early as 1865 Schnepp pointed out the good results obtained from this remedy which he borrowed from the Russians; in 1866 M. Fonssagrives in his Treatise on Special Therapeutics pointed out its happy effects; and in 1874 MM. Edwards and Landowsky, and later MM. Urdy, Labadie-Lagrave, Gubler and other observers have employed it successfully in the hospitals. Koumys only differs from milk in the addition of three new elements—products of fermentation: alcohol, carbonic acid, and lactic acid. * * * Applied in the treatment of phthisis it is found that koumys very speedily produces increase of body-weight, diuresis is augmented, sleep and appetite are improved, and lastly the vomiting, cough, and sweating are diminished. * * * *

Glycerine.—The employment of glycerine is more recent, but no more than koumys or creasote, is it a new remedy, although the application and physiological study of these medicines are of recent date. In 1856 Lindsay, (*Edinburgh Med. Jour.*) proposed it as a succedaneum for codliver oil in phthisis and scrofula, in 1869 Davasse employed it to promote the digestive functions, later it was employed in Glycosuria by Bouchardat (1875), Pavy, Jacobs, Harnack, and in 1877 M. Catillon published his physiological study of it, from which it appears that glycerine in small doses favours nutrition, as evidenced by an increase of weight (an account of his conclusions will be found at page 207 of the Canadian Journal Medical Science for June, 1877. The dose should be ʒ ss—ʒ i per diem. * * * M. Fremy at l'Hôtel Dieu employs the following formula: Glycerine ʒ iii, syrup of iodide of iron ʒ iii, syrup of morphia ʒ vi. Each phthisical patient should take one or two tablespoonfuls a day, which would correspond to ʒ iss—ʒiii of glycerine. It may also be combined with chloral, dissolved by heat, as a hypnotic.

Creasote.—Has been highly recommended in phthisis in a recent work by MM. Bouchard and Gimbert (of Cannes), and also by M. Hugues. It was discovered by Reichenbach in 1830 in the course of his experiments with wood tar, and its therapeutic properties studied. In 1833 (*Bull. de Therap.*) Mignot, Breschet, and Grandjean applied the new remedy in the treatment of phthisis, but they desired to make too much of it and vaunted it as a specific, in consequence of which an undeserved abandonment succeeded the too great enthusiasm of the moment." The difference between koumys, glycerine, and creasote, is that the two former exert an influence upon the healthy as well as the diseased body, but the latter acts only in pathological conditions "The essential condition for the proper administration of creasote is to give it as dilute as possible and in perfect solution, for it must never be forgotten that it is an energetic caustic. MM. Bouchard and Hugues employ creasoted alcohol and creasoted wine; M. Gimbert has proposed creasoted oil: Cod-liver oil ʒ ix, pure creasote of wood-tar ʒ ss—ʒ i. This oil may be administered in the same dose as the ordinary cod-liver oil. The alcoholic solution is employed in the following formula: Pure creasote of wood tar *m* xl, alcohol ʒ iv, water ʒ iv. A tablespoonful half an hour before meals, diluted with half a tumblerful of water. An analysis of 120 cases so treated is given by Bouchard, Gimbert, Hugues and Maurice Reynaud. Twelve cases in the first stage were all apparently cured, the amelioration persisting up to the time of publication. Seventy-five cases in the second stage gave twenty apparent cures, and twenty-six

ameliorations (*i.e.* 46 out of 75), seventeen failures, and twelve deaths. Thirty-three cases in third stage gave thirteen ameliorations (more than 33%), nine failures, eleven deaths, and no cures. Dr. de Boyer combines creasote and glycerine in the following formula: Pure creasote of wood tar ʒ ss, pure non acid glycerine ʒ ii, syrup of gooseberries ʒ iv, essence of peppermint gtt xx. Each tablespoonful contains 2½ minims of creasote and nearly two drachms of glycerine. Two to four tablespoonfuls should be given per day, each spoonful being diluted in a glass of water or carbonic acid water.

From *La France Médicale.*

On the Therapeutic Employment of Arseniate of Gold.

Arsenical preparations now-a-days reckon amongst their advocates physicians of all countries. It will suffice to mention the names of Zeller, Smalz, Lefébure, Fodéré, Valentin, Cazenave, Boudin, &c. On the other hand, the valuable observations, collected through half a century, upon the application of gold and its compounds in the treatment of syphilis, of phthisis, and of strumous affections are known to every one. Cullerier and Bard have declared that gold has been able, in certain cases, alone to destroy the venereal virus. Lalouette has vaunted in scrofula a compound of which gold forms the base. Ramazzini, repeating the opinion of Fallopius, says: "That nothing is preferable to the power of gold when it is desired to arrest the bad effects of mercury upon the organism." Legrand has published a work showing its happy influence in the constitutional symptoms of syphilis, such as ulcers of the nasal fossæ, pharynx or larynx, cutaneous eruptions, exostosis, necrosis, caries, &c. Trousseau and Pidoux have noted in their *Traité Classique* the advantages which they have sometimes derived from dressing unhealthy ulcers with an auric ointment, or from friction of syphilitic engorgements, with such an unguent. Chrestien says Fabre's *Grand Diction. de Méd.*, has tried auriferous preparations in the various forms of strumous affections, and has derived from them marked advantages. Duhamel, in the words of the same author, has obtained unhoped-for results. Niel has employed them in tinea and elephantiasis, Biett in Sycosis, and Gorzi in Scorbutus. If to these affirmations there be added those of Pelletier, of Duportal, of Pierquin and other practitioners not less affirmative, we are justified in concluding that the ancient renown of preparations having gold for a base now-a-days rests upon established facts. To Dr. Chrestien is due the credit of being the first to use a combination of gold and arsenic. * * * Chrestien having treated phthisical patients with the muriate of gold and arsenic alternately, immediately discovered the similarity of their action. The first applications in France were made by Dr. Massart, who administered the arseniate of gold in cancer and in phthisis, and who had the honour of seeing his remarkable work approved by the *Sociétés de Medecine* of Lyon and Toulouse. Last year at the Congress of German Surgeons Prof. Esmarch reported two striking observations in which the employment of arsenical preparations had been successful in suspending the effects of a cancer at a period when useful surgical interference was out of the question. * * * In the arseniate of gold the practitioner has at his disposal, in a small compass, two active substances which are synergic in their action. * * * Italian and American observations have established beyond a doubt that diseases, such as lupus, depending upon scrofula are rapidly ameliorated and ultimately cured by the arseniate of gold. The first effect of the arseniate of gold is a rapid increase of appetite. As Harless, Biett, and Cazenave have already remarked, the peristaltic contractions of the stomach and intestine are excited, and absorption occurs with greater rapidity. The arseniate of gold then directly involves the nutrition of the anatomical elements and consequently exercises a direct effect upon the different varieties of anæmia and chlorosis.

Nitromuriatic Acid should always be prescribed by itself. Recently a very damaging explosion occurred in a mixture ordered by a physician, of nitromuriatic acid and tincture of cardamom.

From *Rivista Clinica di Bologna.*

Retropharyngeal Abscesses.

This Journal for December contains a long account of 144 cases of retropharyngeal abscess and 43 cases of retropharyngeal lymphadenitis which had fallen under the observation of Prof. Bókai, from which we make the following notes:—

Of the 144 retropharyngeal abscesses there were

Idiopathic abscesses	129
Secondary to infiltration of pus from abscesses of the neck	3
Secondary to spondilitas cervicalis	4
Occurring in course of Scarlatina	7
Traumatic, caused by foreign body	1
Total	144

Of these, 102 were opened with bistoury in the throat; 5 were opened by finger pressure in the throat; 19 opened spontaneously in the throat; 18 remained unopened. Total, 144.

Of these 11 died; 120 were cured; and 13 were lost sight of.

Besides these he has observed 43 cases of retropharyngeal lymphadenitis and of these, he says, "Every such case gives rise to a suspicion of retropharyngeal abscess, but it does not always run on to suppuration, sometimes it undergoes complete resolution after a longer or shorter duration.

The author regards idiopathic retropharyngeal abscess as only one termination of retropharyngeal lymphadenitis.

Of the 129 Idiopathic abscesses	5	died.
" 3 Secondary to abscess of neck	0	"
" 4 Secondary to spondilitas cervicalis	3	"
" 7 Secondary to Scarlatina	2	"
" 1 Traumatic	1	"
" 43 Retropharyngeal Lymphadenitis	0	"
Total	11	died.

Causes.—*Age.*—Author observed it as early as the 8th week—more frequent between 3rd and 12th month, gradually decreasing up to 14 years. Scrofula stands at the head of the predisposing causes, and season and local irritations at the head of the exciting causes. Most frequent in January, February, March, April, May, October, and November.

Treatment.—If suppuration have not occurred Dr. Bókai employs cold compresses, and directs ice to be sucked. He thinks the suggestion of Gautier and Schmitz to paint the pharynx with iodine or a solution of iodide of potash worthy of trial.

If decisive signs of the formation of abscess be present he uses hot fomentations, and punctures with a narrow straight bistoury, carefully avoiding the vicinity of the great vessels. He remarks that retropharyngeal abscesses secondary to disease of the cervical vertebrae present but a thankless field for therapeutic measures.

From *Gazette des Hôpitaux.—Hôpital des Cliniques.*

Aneurism of the Arch of the Aorta treated by the Application of Collodion.

M. BROCA.

I propose to speak to-day about a mode of treatment which you have very recently seen me employ upon a patient in our wards. She was a woman of about fifty years of age in whom you could very readily discover the existence of an aneurism of the arch of the aorta making projection on a level with the sternum with very manifest pulsation and *bruits de souffle.* Not desiring to employ a debilitating regimen, we caused the patient to observe a somewhat restricted diet and to remain absolutely at rest; then, hoping by lightly pressing the fibrine into the sac, to make it serve as a nucleus for the deposition of new fibrinous layers, we applied over the tumour ordinary, non-elastic, and consequently retractive collodion, which would compress it and force it into the thoracic cavity. In fact, the next morning the tumour was reduced by two-thirds. The patient felt in the beginning a little constrained, but this sensation of malaise has not continued. On the following day there was no longer any *bruit* and the pulsation had considerably diminished; the pulse previously equal on both sides, although very small, was less affected on the left side than on the right, where it was almost imperceptible. Nevertheless the two pulses again became equal a little later. In view of these signs we may suppose that the tumour is situated upon the anterior wall of the arch in the neighbourhood

of the brachio-cephalic trunk; before the application of the collodion, the pulse was very weak on both sides on account of the interposition in the course of the blood stream of a large derivatory pouch; then the collodion, by pressing back the tumour, produced compression of the brachio-cephalic trunk, and consequently, notable diminution of the right pulse; lastly, clots being formed in the tumour, and these becoming contracted, the vessel has again become permeable, and the disappearance of the pouch has restored to the pulse on both sides its full force. We may therefore regard this woman as being in the way of recovery. Unfortunately she has expressed a desire to leave the Hospital. This is not the first time that collodion has been employed in cases of this kind. M. Lelong successfully employed elastic collodion in a case of aneurism of the aorta to form a cuirass to prevent extension of the tumour. But in this case the end which M. Lelong proposed to himself was not the same as that which we followed here.

From *Lyon Médical.*

Cold Lotions in Tuberculosis.

BY POGACNIK.

The use of cold water in the treatment of Phthisis is much preferable, according to the author, under the form of lotions than under that of douches, such as are employed by Brehmer and Sokolowski. Here is how Pogacnik directs them to be used: on getting up in the morning the patient himself sponges the entire body with a sponge dipped in water at 10° to 20° Réaumur (54½°—77° Fahr.); he ought afterwards to rub himself energetically for five minutes with a large glove and to wrap himself up to dry in a linen sheet. He should afterwards get into bed for half an hour or an hour, and keep himself well covered until a little perspiration occurs; during this time it is necessary that the movements of the lungs should be reduced to a minimum.

The author has been led to employ this treatment in tuberculosis by reason of the good effects he had obtained from it in engorgements of a scrofulous nature. By means of the cold water a regular action of the skin is provoked, and the patient is ultimately strengthened and rendered less susceptible to atmospheric variations.

Little by little the appetite increases and the forces are restored, unless the lesions are too advanced.

Hæmoptysis is not a contra-indication and Pogacnik prescribes the lotions even when the douches cannot be borne.

The lotions have the advantage over the douches of being more agreeable for the patients; of having a more prolonged and consequently more useful effect; of being very easy of administration, even amongst the poor, no apparatus being necessary; lastly, and above all, of not necessitating, like the douche, a walking exercise to procure reaction, an exercise which produces fatigue of the pulmonary apparatus.—(*Rev. des Sciences Médicales.*)

From *La France Médicale.*

Disarticulation of the Hip by the Galvano Cautery and Thermo Cautery.

At the *Société de Chirurgie* on the 7th of February, M. Tillaux described the manner in which he performed this operation upon a patient in the *Hôpital Beaujon* for a sarcoma of the left femur which had been twice broken. "I passed into the thigh, at the point where we usually enter the knife in the flap operation, a long trocar by means of which I introduced a platinum wire. I was able, easily and rapidly, in two or three minutes, by a to and fro movement, to graze the anterior surface of the femur up to the point where I wished to make the flap. Before removing the wire, I placed a ligature *en masse* upon the vessels; I then had a little hæmorrhage on cutting the femoral, not having sufficiently flattened the lumen of that vessel. It would be preferable to compress the artery by an instrument similar to an enterotome. After having thus cut this flap, I laid down the galvano cautery, and took up the thermo cautery, which I used like a knife to detach the head of the femur and cut the posterior flap. During all this disarticulation I did not draw a drop of blood, except the little lost on cutting the femoral artery." The alcoholic dressing was employed, and the woman subsequently died from purulent infection.

From *Gazzetta Medica Italiana.*

On the Use of Collodion as a Means of Compression in Aneurismal Tumours.

Dr. Selion in a case of double aneurismal tumour of the arch of the aorta with external swelling employed a new method of compression, by applying to the skin in the region of the tumour, a dense layer of ricinated collodion, for which he gives the following formula: gun cotton, 8 parts; ether, 100 parts; alcohol, 33 parts; castor oil, 8 parts.

Under the influence of the compression exercised by the collodion the author obtained, in the space of a few weeks, such a reduction that one of the tumours had completely disappeared. As for the second tumour, the larger one, it had attained to about two thirds of its previous dimensions, although the patient, while under treatment, continued his ordinary occupation. He afterwards died suddenly from external rupture.—*Ann. di Chim.*

Note by G. Polli.—We have applied the ricinated collodion, with more lasting success, in a case of very painful aneurism of the arch of the aorta, which had also already determined a periosteal inflammation of the corresponding part of the sternum. After a local leeching, and the application of emollients, and keeping the young patient at perfect rest, we applied several layers of the ricinated collodion over the pulsating region of the subjacent aneurism; in a few days the pain ceased, the pulsation was lessened and the patient was permitted to resume his occupation (literary). Now, five months after, he enjoys good health, is able to take a long walk every day, spends several hours at his table (writing), eats with appetite, and experiences no other inconvenience than the feeling of considerable beating at the base of the neck.

From *L'Union Médicale.*

At the *Académie de Médecine* on 19th Feb. a memoir was presented by M. Roche, student in medicine, upon a means, which he describes as certain, of distinguishing between real and apparent death. This means consists in introducing into a vein a cotton thread, allowing it to remain for six minutes, and then withdrawing it and observing—first, if it is covered with fibrine, life certainly exists; second, if the thread contains no trace of fibrine, death is certain.

From *Lyon Médical.*

Note upon a New Property of Arnica

Dr. F. Planat, of Nice, in consequence of certain physiologicial experiments with arnica, has been led to apply this substance in all cases of superficial acute inflammation, such as boils, anginas, erysipelas, &c. Moreover, from his various experiments he believes that he has complete evidence that arnica arrests every furuncular eruption with extraordinary rapidity, except only the diabetic furuncle. In order to render its action upon the small vessels more energetic it is applied directly upon the phlogosed parts in the form of an ointment, of which the following is the formula:

Extract of fresh arnica flowers, 10 grammes; honey, 20 grammes. If too liquid a little lycopodium or althæa powder may be added to give it the cohesion of a rather consistant but sufficiently adhesive paste. A certain thickness spread upon a piece of oil-skin or diachylon is applied to the boil. It is generally necessary to renew this dressing only once in the twenty-four hours. Two or three applications generally suffice to cut short a furuncle no matter what its stage of evolution. A curative effect is also obtained in the same cases by the administration of twenty-five or thirty drops in a tumbler of water of which a tablespoonful should be taken every two hours. M. Planat believes that the special electivity of this remedy can not be denied.

From *Gazzetta Medica Italiana.*

On Phosphorus in the Treatment of Chronic Alcoholism.

We append the conclusions of a long paper on this subject, which appeared in the above journal.—

1. That phosphorus may be a most useful remedy in the treatment of chronic alcoholism.

2. That it is well borne by these patients even in doses hitherto unusual ($1\frac{1}{2}$ grains of phosphide of zinc, or $\frac{3}{10}$ths of a grain of phosphorus, even when long continued.

3 That it acts by producing in the drinker a sensation of well-being and stability which takes the place of that which previously necessitated a recourse to alcohol to obtain that equilibrium without which he could not stand upon his feet.

Subpleural Ecchymoses of the New Born

Dr. Pinard has lately communicated to the *Société de Médecine Legale* a number (14) of observations relative to this subject. His conclusions are:—

1. Punctate subpleural and subpericardial ecchymoses are not met with as well in infants dead in consequence of arrest of the circulation, either in the beginning or the later stages of labour, or even some minutes after birth, as in infants killed by suffocation.

2. In children who have died some days or hours after birth in consequence of the conditions in which they were placed during the labour, we may meet with, even associated with lungs fully penetrated by air, ecchymotic stains upon the lungs, the pericardium, the thymus gland, &c. These M. Tardieu admitted to occur very exceptionally, but were met with in ten out of Dr. Pinard's fourteen observations. They are important in view of their having been regarded as evidences of infanticide by suffocation, a view sustained by M. Tardieu with so much ability; but Dr. Pinard's experience of their occurrence in consequence of difficult labour simply directly contradicts Tardieu's opinion and confirms that of Liman of Berlin.

From *Gazzetta Medica Italiana.*

Injections of Nitrate of Silver in Sciatica.

In the same number of the same journal we find injections of nitrate of silver recommended in obstinate sciatica by Dr. Dureau. He says:—

Dr. Damaschino always employs a solution of one in four and injects five drops.

Dr. Luton usually employs a solution of one in five and injects five, twenty, or twenty-four drops.

Dr. Bertin (di Gray) employs a one in five solution and varies the amount of injection from fifteen, twenty, twenty-five drops.

Dr. Gerin-Rose adopts the one in five solution and uses fifteen drops. We may say that out of twelve cases this physician obtained several cures, some were improved, and some remained stationary, but he assures us that he has not observed the slightest accident to arise from them.

From *Gazette des Hôpitaux.*

Diphtheria in Paris.

In 1872 there were	1135	deaths from	Diphtheria	
1873	"	1164	"	"
1874	"	1008	"	"
1875	"	1328	"	"
1876	"	1521	"	"
1877	"	2393	"	"

That is to say that between 1872 and 1877 the annual number of deaths in Paris from Diphtheria was more than doubled. These figures are taken from M. Ernest Besnier's Quarterly Reports of the *Maladies Regnantes* and the following remarks of M. Dujardin-Beaumetz may throw some light upon the cause of this enormity. "There are, at this moment, in the crib-ward at St. Antoine out of fifteen patients, twelve infants affected with measles, two women with puerperal fever, and one child with diphtheria. All these patients are in the same ward without any kind of separation. Such are, adds M. Beaumetz, the conditions which are imposed upon us by the administration of the *Assistance Publique.*

Alimentation of Infants.

M. Bouchut of the *Hôpital des Enfants Malades* has lately published in the *Gazette des Hôpitaux* a long and continued article on the enumeration of the milk globules in human milk in the selection of a wet nurse. We subjoin his conclusions:

"If the milk globules of a nurse be counted, four samples being taken in a day, we can, from the mean ot these four analyses, determine the richness of her milk, *i. e.* the quantity of butter it contains, which approximately gives the den sity. So much for the *quality* of the milk. By weighing the infants before and after the various nursings of the day, we may learn how much milk the child drinks in the twenty-four hours. So much for the quantity. Lastly, if during the first months the child be weighed every ten days, and if its weight have increased by from 250 to 300 grammes, we may know that the milk is good and easily assimilable. So much for digestibility. In this way, nothing in the alimentation of infants is left to chance or empiricism, and the whole is conducted upon rigorous scientific principles well applied."

Catarrhal Diarrhœa Cured by Sulphate of Quinine in Large Doses.

M. Guyot reports a case in which he had to do with a man aged 66 who for several years had suffered from a catarrhal diarrhœa against which all means employed had failed and under the influence of which the man was visibly dying. Upon the advice of M. Potain, M. Guyot caused him to take every hour a tablespoonful of the following mixture :

Sulphate of quinine 7½ grains
Syrup of codeia ʒi
Gum Julep ʒiii

The dose of sulphate of quinine was gradually increased to 9, 11, 12, and 15 grains. Under the influence of this medication, which was continued for a long time, all symptoms disappeared and the patient recovered perfect health. There was not found in him any trouble inherent to the employment of the quinine.—*Gazette des Hôp.*

Anemo-spasmodic Cardiac Bruits

M. Constantin Paul lays down the following directions for the differential diagnosis between these *bruits* and extra-cardiac *bruits.*

1. The anemo-spasmodic *bruit de souffle* of the pulmonary artery is always accompanied by a jugular *bruit.*

2. Sometimes it is diffuse and is propagated towards the apex.

3. The anemo-spasmodic *bruit* is always systolic, whilst extra-cardiac *bruits* are sometimes systolic, sometimes diastolic.

4. The anemo-spasmodic *bruit* is never transformed into the *bruit saccadé* (jerking), as happens with the extra cardiac *bruit.*

5. The anemo-spasmodic *bruit* is heard with each cardiac revolution, and is not, like the extra-cardiac, wanting in some revolutions.

6. The anemo-spasmodic *bruit* is much less transitory than the extra-cardiac, and is less liable to disappear under the influence of slight cardiac modifications.

From *Revista Médico-Quirurgica* (Buenos Aires.)

Salicylic Acid in Leucorrhœas.

We have employed this remedy as an injection in chlorotic women and those of lymphatic constitution, in cases of vaginitis and in leucorrhœas from the uterine mucosa in which the irritant liquid produces erosion of the thighs and vulvar inflammation, and in all cases with the best result. We have used the following formula :

Salicylic acid ..... ʒjss.
Glycerine ..... ʒiij.

Dissolve in a waterbath and add 1 quart of water.

This is enough for six injections of which one should be employed each day.

From *Gazzetta Medica Italiana.*

Cure of a Sciatica by Phosphorus.

Dr. Volquardsen reports in Schmidt's Dictionary a case of sciatica which had lasted two years, and in which all remedies had failed. Then the idea occurred to him to have recourse to phosphorus internally. The remedy was prescribed in the dose of fifteen milligrammes, ($\frac{9}{40}$ths of a grain) per day, to be divided into three doses. In three days a notable amelioration was obtained, and in three weeks the cure was complete.

In the *Revista de Medicina y Cirugia Prácticas* for 7th of February, we find reported by Dr. D. Pedro Gallardo of the Hospital Provincial de Toledo, a case of successful extraction of a living child by cæsarean section five minutes after the death of the mother.

Table-salt in Milk for Children.—Dr. Q. C. Smith, of Cloverdale, conveys a valuable hint in the following note : "When cow's milk is found to disagree with hand-fed babies or small children, it may in many cases be rendered entirely wholesome to them by adding to it a small portion of table-salt ; just enough to be perceptible to the taste. I have for years directed the practice of this expedient among our people, and know it to be of real value.—*Pacific Med. and Surg. Journal.*

THE CANADIAN
Journal of Medical Science,
A Monthly Journal of British and Foreign Medicall Science, Criticism, and News.

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending their addresses to the corresponding editor.*

TORONTO, ARPIL, 1878.

ON THE PROGNOSIS IN VALVULAR DISEASE OF THE HEART.

Through the kindness of our esteemed friend and former teacher, the author, we have received a copy of a revised reprint from the St. Thomas's Hospital Reports of a paper on Prognosis in Valvular Disease of the Heart, by Dr. Peacock, Honorary Consulting Physician to that Hospital. We have endeavoured to give a summary of the salient points in the article, the paper being too long to be inserted *in extenso* in our columns.

The chief sources of danger in valvular disease of the heart are

(1) Failure of muscular power, from atrophy and disorganization of the walls of the heart, causing dilatation of the cavities, and frequently leading to sudden death by syncope.

(2) Congestion of the organs behind the seat of obstruction, causing effusion into the pericardial and pleural cavities, bronchitis, œdema of the lungs and hæmorrhages, congestion of the liver, and through it of the portal system ; congestion of the kidneys and of the cerebral system ; general dropsy.

(3) Thrombosis and embolism of various organs.

In estimating the risk from the above causes, the different forms of valvular lesions must be separately considered :

Obstruction of the Aortic Valves.—Many persons have for years loud aortic obstructive murmurs without any other serious symptoms arising. If by hypertrophy of the left ventricle, the power remain equal to the resistance, no obvious symptoms may be produced. In consequence of compensation, the slighter degrees of aortic obstruction are not in themselves of very great importance, though there is danger of embolism and the secondary diseases arising from it : there is too great a predisposition to active inflammatory and hæmorrhagic affections, especially of the cerebral organs.

Incompetency of the Aortic Valves.—This may arise acutely from disease causing breaking down of the segments of the valves, or it may be due to contraction and induration of valves that have been inflamed ; or it may be congenital, or due to gradual stretching of the valves from severe muscular exertion, or direct injury during violent muscular effort ; or the aperture may close imperfectly from expansion of the orifice from dilatation or aneurism of the ascending or transverse portion of the aorta. Incompetence whether it arises acutely or be chronic is most serious. If acute the ventricle cannot stand the additional labour suddenly thrown upon it and death often rapidly ensues. In chronic cases the constant strain on the ventricle frequently causes sudden death from syncope.

Obstruction of the Mitral Valves.—Arises from the same causes as aortic disease—in it there is greater danger than in aortic obstruction : the pulmonary capillaries are distended, and aeration is interfered with. Pulmonary complications are frequent, and readily induced by exposure to cold. Often we have hæmorrhage and thrombosis.

Incompetency of the Mitral Valves.—Is either acute, or ensues on obstruction, or arises from rupture of the valves or their chordæ tendiniæ after strain. Sometimes it follows enlargement of the aperture from dilatation of the ventricle. In this disease we have tendency to bronchitis and œdema of the lungs : pulmonary apoplexy, engorgement of liver, spleen, kidneys and brain, and the secondary affections of these organs arising from this engorgements may occur. Finally, we get general dropsy. Still, in many cases, careful treatment prolongs life for many years and even renders it comfortable. Incompetency is more serious than obstruction. Incompetency of

the aortic is more dangerous than the same lesion of the mitral valves. The former lesion causes great impediment to the circulation, and imperfect blood supply to the brain, and death by syncope is a frequent termination. In mitral insufficiency, death is brought about more slowly, not usually by syncope, but as the result of imperfect aeration of blood and from its impurity due to the changes in the viscera brought about by congestion, and from dropsies. Obstruction of the mitral valve is more serious than when the aortic are thus diseased. In the former case the left auricle and right ventricle are unable to propel the blood and the lungs become engorged. In the latter case the left ventricle long resists, and compensatory hypertrophy is set up.

We have then in the order indicating relative danger, beginning with the most serious—

Aortic Regurgitation,
Mitral Regurgitation,
Mitral Obstruction,
Aortic Obstruction.

The rarity of disease of the right side of the heart renders comparison as to the relative danger, difficult. These affections are most frequently congenital, and patients thus afflicted rarely survive many years. In the prognosis of valvular disease, the limitation of the disease to one set of valves or its extension to others influences the result. The complications and the individual's circumstances must also be taken into consideration. The complications are diseases of the lungs, liver, spleen, kidneys and brain, dropsies, gangrene, rheumatism, gout and dyspeptic troubles, anæmia, purpura, extravasations. Cold often excites more active symptoms in cases hitherto almost latent, causing bronchitis, and aggravating congestion of the viscera and its secondary complications. Also in quite chronic cases, cold will congest the kidneys, and sudden dropsies set in. In cases of renal and cardiac symptoms combined it is very important to decide which is the primary disease. If the kidneys be primarily affected, the cardiac trouble must almost necessarily advance; if the contrary, the congestion of the kidneys may admit of great alleviation, and the patient will comparatively recover. The condition of the urine is important in deciding the above question: in simple renal congestion, though the quantity of urine is small the specific gravity does not fall generally below the healthy standard; whereas when renal disease is primary, the specific gravity is generally low whatever be the quantity of the urine passed. Brain complications of cardiac disease, though serious, are not necessarily fatal, or the cause of permanently impaired functions. Embolism is frequently recovered from.

Rheumatic affections are of serious import in persons with cardiac trouble, especially if that be due to previous rheumatism. Gout and dyspepsia aggravate the disease.

Anæmia is a frequent complication of old heart disease, and both aggravates it, and makes the extent and nature of organic trouble difficult to diagnose.

Cases of excessive irregularity in cardiac action without any murmur indicating valvular change are probably dependent on mitral incompetence from dilatation, and failure of muscular power, of the left ventricle; and when the irregularity is very great such cases are always of grave import, very generally terminate unfavourably and often run a rapidly downward course in spite of any treatment. In cases of less marked irregularity, great benefit often follows treatment, especially the use of iron.

Individual circumstances, such as age, occupation, residence and previous habits, influence the prognosis in all cardiac affections. In men valvular troubles are most commonly from active inflammation, or from overstrain from violent and long-continued exertion, and they generally follow an active and rapid course soon causing hypertrophy In females though rheumatism is a frequent cause, yet a considerable portion are due to emotional influences. The disease is more passive, and dilatation, interstitial change, and atrophy of the walls more readily occur. In early life valvular disorders are almost always congenital or rheumatic. In middle life, inflammation, injury, and strain stand as causes—in advanced age, fatty and atheromatous change, renal disease, and gout are the starting point, and dilatation generally occurs; at this period of life the disease is passive and often latent. A hot climate

and a malarious district, the occupation, amount of exposure and of bodily and mental exertion, and the habits of the individual have all to be considered in forming a prognosis. In estimating the probability of temporary or permanent benefit from treatment in a particular case, we must consider—

1. The cause of the disease, duration of symptoms, and the rapidity of their advance as indicating activity or passivity.

2. Degree of impediment to circulation and the power of the heart to overcome it, as indicated by the force and regularity of its beat, and the relation it bears to the pulse at the wrist; the amount of congestion of the lungs and other organs and of the general system.

3. The presence or absence of serious complications, as of lungs, liver, brain, and kidneys, and the existence or not of dropsical symptoms, and of a gouty or rheumatic condition.

4. Circumstances in which the individual is placed, as affording means of obtaining rest, bodily and mental, protection from atmospheric changes and proper regulation of diet and facilities for medical treatment.

The intensity and character of a murmur affords little information as to the extent of the impediment to the circulation. We may have a loud murmur with but little obstruction or regurgitation and *vice versa*. Slight puffiness of the face and swelling of the lower limbs, if the heart be not seriously embarrassed and the viscera not much involved, especially if the kidneys be free from disease is often readily recovered from; but considerable anasarca, effusion into the lungs and pleural, pericardial and peritoneal cavities involve immediate danger and afford but little prospect of even temporary relief. The causes of the greatest suffering in chronic cases, tending to aggravate the malady and accelerate a fatal result, are pulmonary congestions and renal complications resulting from cold; also digestive disorders, mental excitement, over-exertion of body.

With care and proper treatment many chronic cases enjoy a fair measure of health and comfort during many years. It is necessary that a patient should be so far informed of his state as to see the importance of the regimen directed, but it would be unwise and unkind abruptly to tell him that he was labouring under serious cardiac disease.

REPORT OF THE MEDICAL SUPERINTENDENT OF THE TORONTO ASYLUM FOR INSANE, FOR THE YEAR ENDING 30TH SEPT., 1877.

The recently issued annual report of the Toronto Asylum is an unusually interesting and instructive public document, for the production of which the talented and energetic medical superintendent, Dr. Daniel Clark, is entitled to the gratitude and respect of the medical profession, and of the general community. It is truly refreshing, in these days of weak-kneed subserviency and moral dwarfdom, to meet with an official brochure so signally free from all odour of red tape formalism, as that which Dr. Clark has had the courage and good sense to submit to the "high and mighty powers" who now control the affairs and dispense the patronage of this great little Pedlington, which honest old Dr. Dunlop was wont to call the fat end of the Canadian quarter of mutton.

We cannot devote to our review of Dr. Clark's report all the space which we would desire to appropriate to it, nor half so much as its merits should command; we must, therefore, restrict our observations to but a few of its more salient points, recommending our readers to possess themselves, if obtainable, of the entire document.

Dr. Clark has devoted no less than seven pages to the exposition of an awfully prevalent evil, which he designates very fitly under the title awarded to it many years ago by his predecessor, Dr. Workman, to wit:—

"*An enshrouded moral pestilence.*" We need not apprise our professional readers that the terrible factor of physical deterioration and mental dethronement, to which Dr. Clark has here been constrained to draw attention, is the early acquired practice of self-abuse, or masturbation. Every physician who has had even but a brief practical experience, must be able to endorse all that Dr. Clark has stated as to the extent to which this evil prevails, and as to the sad results which ensue from its continuance.

Though it may be questionable whether self-abuse, *per se*, is an efficient factor of insanity, in so large a measure as some alienists seem to

regard it, we have the reliable testimony of the entire body of superintendents of American asylums, that it is the most obstinate antagonist of mental restoration with which it is their wearying task to contend; and, if we are rightly informed, it underlies, among the hopeless cases which crowd their wards, mental incurability to a most lamentable extent. Most justly has Dr. Clark said, "Many know not where it leads to, and were they enlightened in time could successfully resist and overcome the vice. It is often" (always) "too late when they enter the portals of a madhouse to expostulate and entreat."

The movements of patients in the year appear to us as very satisfactory. The total admissions were 232; the total discharges, 112; of the latter, however, 15 are reported as "unimproved," and 22 as "improved," thus making the nett number of "cured," 75.

The deaths numbered 58, which, as taken against the total number of patients under treatment (863) in the year, is about $6\frac{7}{10}$ per cent. This is a larger proportion than was exhibited in some by-gone years; but when we take into consideration the greatly increased nnmber of admissions in the last two years, amounting to no less than 529, many of which were of acute and unpromising form, we may regard the mortality as very moderate. It must be remembered, too, that the newly admitted patients largely replaced chronic cases transferred to the new asylum at Hamilton, the great majority of which had passed long over the critical period of asylum life risk, and had very fair promise of prolonged life. Any comparison of either the death, or the recovery, statistics of two institutions so very differently peopled as these two, must be utterly absurd, and reciprocally unjust to each. Just as surely as the Hamilton asylum will show a comparatively low mortality, must it show a signal poverty of recoveries;—and as surely as the Toronto asylum turns out many cured, must it also hand over to the undertaker many defunct. This is a fact which some figure-head zealots seem either incapable of appreciating, or obstinately bent on ignoring.

Dr. Clark, under the section appropriated to "deaths," has ventured on an assertion which we are unprepared to regard as tenable, with regard to the frequency of concomitancy of phthisis and paresis, in the same cases. If we are rightly informed the *post-mortem* records of the Toronto asylum, which were by no means meagre, will not bear the Dr. out in the enunciation of this new theory; nor indeed does his own death tabulation give much countenance to it; for in a total of twenty-two deaths from phthisis, he has given only one, in which paresis co-existed, and in seven deaths from paresis, only one in which phthisis co existed. We cannot but regard generalization of this sweeping order, based on so narrow a surface of facts, as over hasty, and we have full reliance on Dr. Clark's veracity and candour to warrant the expectation that he will either retract the assumption, or possess himself of facts adequate for the establishment of its correctness.

We are pleased to see that Dr. Clark is able to record a number of "*improvements*," both in the interior and exterior of his establishment. Some of these were certainly much needed, and the fact that Dr. Clark has been able to draw much more freely on the fiscal liberality of his masters than his timid predecessor was, proves that he is the right man for the situation, and that it was high time for a change of incumbence. Parsimony in the disbursement of the public funds is a very silly modern virtue, and any public officer who dreams that by this kind of service he will earn any large measure of public gratitude, will, in the end, find that he has been "reckoning without his host." We therefore heartily endorse Dr. Clark's exposition of the further "requirements" of his asylum. By all means let him persist in his demand for "*a decent entrance*" to the building. The present "*basement entrance*" is verily a *base* and disgraceful thing; but we would fondly hope the design of this improvement will be intrusted to some architect of good taste, who will project something better than a pile of empty soap boxes.

In closing our hurried observations, we would, with all becoming tenderness and respect, suggest to the excellent and accomplished writer of this report, the expedience of a little closer attention, in future reports, to grammatical

correctness, and a little less free indulgence in metaphorical excursions. We feel assured that Dr. Clark will not fail, on a careful reperusal of his very valuable report, to detect several syntactical errors, which must have crept into his manuscript in consequence of hurried construction. It is a pity that a public document of such high merit, should pass from the press with any blemish which may offend the good taste of the generous critic, or afford pretext for the ill-natured censure of those who are more anxious to find fault with the form, than to discover merit in the substance.

THE MEDICAL COUNCIL EXAMINATIONS.—In the last annual announcement of the Council of the College of Physicians and Surgeons of Ontario, it is stated that "The written portion of the next professional examination will commence in Toronto and Kingston towards the end of May, 1878, the precise day to be fixed by the president." We are informed that Dr. Clark has named April 29th as the day upon which the written examinations shall begin. Doubtless this change of date has not been made without good and sufficient reason, but it is unfortunate that it was not announced sooner, as many students complain of an injustice having been done them, in thus shortening the time they expected to have to prepare for examinations. Though we think that with two month's notice, no student who has worked faithfully during the winter will suffer by the change of date, still, it would have been far better, if even the shadow of a grievance which is always eagerly seized upon and made capital of, had been avoided. Whether the president has exceeded his powers or not, in fixing for the examinations a time before the end of May, we cannot decide; but we feel confident that he will justify his action in this matter before the council.

JOURNALISTIC.—We have received the first number of *The Scholastic News*, an eight-page monthly journal of interesting information on educational and other subjects, published by G. Maynard, Manager of the Educational and Scholastic Agency, Montreal. Subscription, One dollar per annum. We wish the *News* all success.

TORONTO SCHOOL OF MEDICINE AND VICTORIA UNIVERSITY.

We have been asked to contradict a statement that has been industriously circulated through the country during the last year by some unscrupulous persons who are much exercised by the popularity and progress of the above school, and who evidently fear its influence as the largest and most successful Medical School in Ontario.

A lie persisted in may gain the force and momentum of truth, and it has been well said, "that a man may tell a falsehood and repeat it so often that he finally believes it to be true."

On no other hypothesis can we account for the persistence with which certain parties repeat the falsehood, that the Toronto School of Medicine is advertised by Victoria University as its Medical Department, while they know perfectly well that the statement was untrue at the beginning, was repeated without any foundation, reasserted with all the assurance and circumstance of truth, until it is probably believed by its author, because he has told it so often without contradiction. Nothing but the most wilful perversion of truth could enable any one to draw such an inference from the plain language in which the calendar of the University of Victoria refers to the discontinuance of its own Medical Faculty in Ontario, and advises intending students "to pursue their studies in the Toronto School of Medicine, in affiliation with the University of Toronto." One of the chief propagators of the slander says, "This school is now and has been for the past three years advertised in the Victoria College calendar as the medical department of Victoria University," a statement that certainly has the merit of being explicit; but what a pity 'tis not equally true.

The paragraph in the Victoria College calendar for 1875, (the first published after the disruption of her own Faculty,) reads thus:—

"The lectures in the Victoria Medical School having been discontinued, students intending to graduate in Victoria University are recommended to attend lectures in the Toronto School of Medicine, from which school certificates will be accepted by this University."

We do not see how language could be more

clear in enunciating the distinctness of the two Institutions, and if on the above it can be established that the Toronto School of Medicine is the Medical Department of Victoria University, most assuredly it might claim to be the Medical Department of Toronto University, with which it has been affiliated for so many years, but the Toronto School of Medicine has never claimed a closer connection with the Provincial University than that accorded it by law, and it is now, as it always has been, willing to stand or fall by its own merits. Again in the calendar of Victoria College for 1876, under the "Medical Department, Province of Ontario," almost the same language is used, and "Students intending to graduate in Victoria University are recommended to attend lectures in the Toronto School of Medicine, from which school certificates of attendance will be accepted by the medical examiners of this University"—a piece of information hardly worth publishing, if it were true that the Toronto School is really the Medical Faculty of Victoria.

That the Toronto School of Medicine has ever been true in its fealty to the Toronto University, the most sincere friends of that institution have always been ready to admit, but, if it should be to the advantage of the school, or if it would enable it more effectually to accomplish the great work it set out to do, (that of giving the country a good supply of well educated, thoroughly practical men), we have no doubt it *would* extend its usefulness by forming those connections which *now* only live in the imaginations of some, and seem to disturb the quiet sleep of others.

Ontario Medical Act.—The Bill to amend the Ontario Medical Act was not passed, owing, we are informed, to the fact that it came just before the Orange Bills, and the weak-kneed government and their supporters talked against time, to avoid dealing with them. That part of the Bill relating to remuneration of the medical men must, as it contains a money clause, be introduced by the government. This we are informed Mr. Mowat has promised to do next session.

NECROLOGY.

Want of space last month forbade our noting the serious losses to the profession recorded in our foreign exchanges

Among these we regret to observe in the *Gazzetta Medica Italiana* the death of the eminent Giuseppe Repossi on the 9th of January; and in *Lo Sperinentale*, that of Dr. Serafino Vierucci, in Livorno, from apoplexy, at the age of sixty-two; also that of Dr. Giuseppe Pellizzari on the 17th of December at the age of fifty-one. He was Surgeon-in-Chief of the City Hospital of Padua. We also observe the death on the 12th January of Prof. Ranieri Bellini, from voluntary poisoning, at the age of sixty years. He was professor of Toxicology and Legal Medicine in the *R. Instituto di Firenze.* But it is especially amongst our French *confrères* that even thus early in the year, "that fell Sergeant, Death," has been so "strict in his arrest." Here we find the names of Hirtz, Becquerel, Regnault, Raspail, Claude Bernard, and Eugene Simonniet. The last-named, however, was not a medical man by profession, although he did good service to the art and science by starting *La France Médicale* twenty-five years ago. He was sixty-three years of age at the time of his death, and had handed over the Journal to Dr. Bottentuit in 1874. Hirtz (Mathieu Marc) born at Wintzerheim (Haut Rhin) died at Paris on 27th January, aged sixty-nine. One of the most learned and renowned professors of the Strasbourg School, where he occupied the Chair of Clinical Medicine from the time of Forget's death in 1861 up to the conclusion of the war in 1871, when he was nominated to the Faculty of Nancy. This he declined, however, and determined to remain in Paris, where in August, 1873, the Academy of Medicine elected him to the Chair made vacant by the death of Vigla, an honour which MM. Villemin, Jaccoud, and Peter contested with him. In the *Gaz. Med. de Strasbourg*, of which he was one of the collaborators, he published a host of papers upon a variety of subjects; and to the *Nouveau Dictionnaire de Médicine et de Chirurgie pratiques* he contributed eleven articles. Hirtz was a Chevalier of the Legion of Honour.

Becquerel (Antoine-Cæsar) was born in 1788

and was educated in the *Ecole Polytechnique*. His early life was distinguished by brilliant feats of arms and in 1844 he was made a Chevalier of the Legion of Honour. He soon abandoned the profession of arms and devoted himself to the study of Physics, pure and applied. In 1838 he was appointed Professor of Physics at the Museum. His contributions to the *Annales de Physique et de Chimie* and to the *Memoires de l'Académie* were very numerous and important; and his chief work was a treatise on electricity and magnetism. He died at the advanced age of ninety, having preserved the laborious habits of his youth up to the last, and his loss will not be easily supplied to Physico-Chemical Science, to which he had devoted sixty years of his life.

Regnault (Henri Victor) was born at Aix-la-Chapelle in 1810. He was elected a member of the *Académie des Sciences* in 1840, at the early age of thirty years. He had been a Professor at the *Collége de France*, at the *Ecole Polytechnique* and Director of the manufactures of Sèvres. His son, the celebrated painter, was killed at the battle of Buzenval in 1871. During the siege all his scientific apparatus was broken up, and his manuscripts destroyed. The loss of his eminent son and this unjustifiable act of modern vandalism he could not long survive, but became afflicted with paralysis and died at the age of sixty-seven.

Raspail (F. V.) was a savant of another type, and a politician of much eminence. He first propounded the cellular theory which Schwann subsequently perfected, Raspail's political associations at the time preventing him from following it up. The versatility of his genius was remarkable and at the same time that he was engaged in physical and chemical researches he published his first work "On the Classification of the Grasses." He also made investigations in Microscopical Anatomy and Palæontology, and his views were always remarkable for their originality. His chief works were written while in imprisonment for political offences. These were "An Essay on Microscopical Chemistry" (1831), "Elementary Course of Agriculture" (1832), "New System of Organic Chemistry" (1833), "New System of Vegetable and Botanical Physiology" (1837). As a physician he would not perhaps be regarded as *compos mentis*. He regarded all diseases as being of parasitic nature, and vaunted camphor as a panacea; his peculiar views he did not hesitate to carry out in practice, and his therapeutics consisted in the administration of camphor internally, externally, and eternally.

Warner and Co.'s Phosphorus Pills.—We have, through the courtesy of Messrs. Warner and Co., received a sample lot of their pills, containing phosphorus in various combinations. The mass is soft, has the odour of phosphorus, is luminous in the dark, has no lumps of phosphorus, as it is combined when in solution, and, finally, it is perfectly protected from oxidation or the conversion into phosphoric acid. Mr. A. E. McLean, analytical chemist of New York, after examining the pills chemically and microscopically, reports the mass as being perfectly homogeneous, not exhibiting particles of undivided phosphorus, and thoroughly protected from the oxidizing influence of the air by means of the sugar coating. He says each pill is an example of what skill, care, and elegant pharmacy can do. He found them to contain $\frac{1}{85}$ grain phosphorus, as expressed on the label, and regards them as a model of perfection. The pills may be had containing phosphorus alone $\frac{1}{50}$ or $\frac{1}{100}$ grain in each, or in combination with suitable doses of cannabis indica, cantharides, nux vomica, ferri-carb., ferr-redact., strychnia, digitalis and hyoscyam, aloes and nux vomica, quinine, &c., &c. We commend these elegant preparations to the notice of our readers.

The Journal of Physiology. We have received the prospectus of this Journal, which is to be published in parts, not at rigidly fixed times but according to supply of material. It is to appear as nearly simultaneously as is possible in America and England.

Dr. Michael Foster is the Editor and has as associates, Gamgee, Rutherford, and Burdon Sanderson in Great Britain; Bowditch of Boston and H. N. Martin of Baltimore, in America. From the prospectus and from the standing of the Editorial Staff, a Journal of very high literary and scientific excellence may be looked for.

Amyl Nitrite in Epilepsy.—In Dr. Daniel Clark's last annual report of the Asylum for the Insane, Toronto, very favourable remarks are made as to the controlling influence amyl nitrite exerts over the frequency and violence of epileptic attacks. The remedy was given in half drop doses three times a day. We append a few extracts from Dr. Clark's report on this subject.

"It can be truthfully said of its medicinal effects, that the twenty-five or more persons who have taken it for a longer or shorter time, have almost, without exception, been benefited by it. In some cases the fits have ceased altogether; but of course there is often a periodicity in their invasion, which must be taken into account; and, it is possible, that although the intermissions of freedom from them may be longer than usual, the fits may after a time return with former intensity, or in a modified form. So far this class has been exempt. In other cases the attacks were, under the administration of the drug, as frequent as formerly, but not as severe, nor of the usual duration. Some of the patients tell me, that since taking the medicine, when they feel the fit coming on they can overcome it by a strong effort of the will. A third class still have fits, but much fewer and less severe than formerly. All these cases had been treated in the orthodox way before using this drug, without any decided benefit. Among other formulæ I used the much lauded remedy prescribed by Brown-Sequard in epilepsy.

"It is impossible to say, with any exactitude, what may be the condition of the brain in such typical cases, but in this asylum a large proportion of those afflicted are anæmic. The few of full habit who have been treated with the amyl have not shown that susceptibility to the influence of the drug that the anæmic have done.

"It is my impression that it will not prove of permanent advantage in chronic cases, but if it modifies the fits in such, and reduces the frequency and strength of them in recent cases until nature asserts its powerful supremacy, a great good will be accomplished by this potent agency."

Book Notices.

Report of the Medical Superintendant of the Asylum for the Insane, Toronto, for the year ending 30th September, 1877.

Transactions of Eighth Annual Session of the Medical Society of Virginia.

These transactions are published with the January number of the *Virginia Medical Monthly*, and as usual are a credit to the society from which they emanate. They contain an address from the President, Dr. Cabell, also one on the Study of Medicine, by Dr. Randolph, and reports on Advances in Chemistry, Obstetrics, Practice of Medicine, Hygiene and Public Health. A special Report on Poisoning by Custards and Ice Creams, and one on Epidemic Zymotic Diseases in Animals. These with three Volunteer Papers on Heart-Clots, Bony Union of Intra-capsular Fracture of the Femur, and on Iodoform as a local remedy, together with the report of the Necrological Committee, and of the proceedings of the Society, and a Report of the Discussion on the subject previously selected, viz., Instrumental Labour, form a volume of 190 pages, that will amply repay perusal. The paper on Heart-Clots, by Dr. Martin L. James, contains a full report of three cases with *post mortem*, two of them long existing, that were under his own observation. He also gives an interesting synopsis of our present knowledge on the subject.

Kneading Hæmorrhoids.—Dr. S. W. Garwood, of Fort Scott, Kansas, writes to us as follows: "About two years ago, while riding, my horse threw me, bruising me considerably. Shortly afterward I observed a hæmorrhoid about the size of a cherry which gave me great annoyance for months. I one day seized it between my thumb and finger and, kneading it firmly, obliterated it. Since then I have destroyed numerous piles for others in the same way: sometimes it is necessary to repeat the process several times, but it is always successful."

Miscellaneous.

Dr. J. Russell Reynolds, F.R.S., is gazetted Physician to the Queen's Household, in succession to the late Dr. Francis Hawkins.

Dr. David M. Young strongly recommends a teaspoonful of glycerine taken night and morning as a remedy for internal piles.

Dr. Thoulouse recommends as a vesicant a disc of fine cloth soaked in oil, and besprinkled with corrosive sublimate, in fine powder.—*Medical Press and Circular.*

Personal.—We are informed that Drs. A. A. MacDonald, of Guelph, and Covernton, of Simcoe, intend shortly to remove to this city to practise.

Ontario Medical Council.—We omitted to mention in January number that Dr. W. L. Herriman, of Port Hope, has been elected to replace Dr. Dewar, deceased, as representative of the Division of Newcastle and Trent.

Canadians in England.—R. B. Orr, M.B., Toronto, has passed the examination and received the certificate to practise of the Apothecaries Hall, London. H. L. Reddy, M.D., Montreal, has been admitted Licentiate of the Royal College of Surgeons, Edinburgh.

Dr. Jaillard, of Algiers, employs the microscope for the detection of butter adulterated with animal fats such as suet. Under the microscope butter globules are round, while other fats appear in needle-shaped or branched crystals.—*New York Medical Record.*

Five Children at a Birth.—In the *Wiener Med. Presse* an Austrian Naval Surgeon reports that a woman gave birth, prematurely (eighth month), to five children, four boys and one girl. There were five placentæ. The bodies of the children have been preserved in the Pathological Museum of the Marine Hospital at Pola.

Camphor-Chloral.—Mr. W. T. Toucher recommends the following formula for a camphor-chloral liniment, which has a powerful anti-neuralgic application: Chloral-hydrate and camphor, of each one ounce; glycerine, to six ounces; powder the camphor, using as usual a few drops of rectified spirit; then mix with the chloral, and allow to stand in a mortar until the mixture becomes liquid. Having poured this into a bottle, add the glycerine, and shake. —*London Med. Record.*

Explosion of a Chlorate of Potassium Mixture.—A correspondent of *New Remedies* reports a case of explosion in the following circumstances. The following prescription was made:

℞
Tinct. ferri chloridi
Glycerinæ puræ
Potassii chloratis āā ʒ ss. m.

The above was intended to be farther diluted for a gargle, being put in this compact form for convenience. The correspondent placed it in his satchel, where after a while it exploded with great violence.

Monobromated Camphor.—Great difficulty is often experienced in dispensing this useful remedy. According to M. Lepage, the following plan is advantageous:

Dissolve the monobromated camphor in six times its weight of almond oil by the aid of a gentle heat, emulsify the oily solution with gum arabic, and then suspend it in syrup or in water, according to the indications of the prescription. The emulsions obtained were as perfect as those with almond oil alone.

In consequence of the instability of the oil used as a solvent, the emulsion should be prepared as required: the monobromated camphor however, appears to keep without undergoing any decomposition, even after an interval of three months.

To emulsify seven grammes of the oily solution, containing one gramme of the active substance, the author employs three grammes of powdered gum arabic, suspended in double its weight of water. When the emulsion has been made, the necessary quantity of syrup or water is added in the usual manner.—*Phil. Med. Times.*

Carbolic Acid Subcutaneously in Erysipelas.—Dr. J. S. Whitmire of Metamora, Ill., advocates in the *Chicago Medical Journal and Examiner* for March, the use of carbolic acid hypodermically in the treatment of erysipelas. The following is his formula. Carbolic acid (crystals one ounce avoirdupois, pure glycerine fl. ʒj; mix and warm in a water bath till the acid is dissolved. To prepare the fluid for injection he uses the following proportions: Glycerine ʒ ss, water ʒ ss, of the mixture described above, drops xx. This contains 1¼ drops in each drachm. He uses from one to three drachms, introducing the syringe at a dozen or more points, completely encircling the discoloured skin, and at half a dozen or more points over the diseased surface. The solution is warmed to 98° F. before being used. Dr. Whitmire has treated thirty cases in this way, and has in many of them succeeded in aborting the disease; he has seen no untoward symptoms following, and in no case has abscess or sores resulted. The value of the paper is greatly diminished by the fact that other means of treatment were combined with the carbolic injections, the author having been, as he states, "afraid to take the chances" with his remedy alone. He applys locally a solution of iodine gr. xv, iodide of potash gr. x, alcohol ʒ ij, castor oil ʒjv, and gives internally tinct. ferri chlorid. ʒss, pot. chlorat. ʒ ij, ammoniæ hydrochlorat. ʒ iij, syrup simpl., ad ʒ jv. A tablespoonful every four hours. He also gives one of the following powders between each dose of the medicine. ℞ pulv. opii gr. iij, quin. sulph. ʒ ss, pot. chlorat. ʒ i; mix and divide into nine powders.

Proceedings of the Medical Society of the County of Kings.—At the regular meeting, held December 18, the subject of *Cod-Liver Oil* elicited some interesting remarks, from which we select the following:—Dr. Squibb said that the purity of cod-liver oil was a very important subject, on account of its very general use, and because the stomachs of those persons who needed the oil most were least able to retain it. He greatly preferred the Norwegian oil, not because it contained any medicinal property which ours did not, but because of its greater purity, on account of the manner of its manufacture. In Norway, the cod fishery ceases, by law, about the middle of April, and is not resumed until late in the fall. Great care is observed in the preparation of the oil, scarcely any heat being used, the absence of any high temperature preventing incipient rancidification. Only the very finest of that produced is exported, and for these reasons the Norwegian oil is almost invariably finer than our own. The discovery of the fact that ether increased the flow of pancreatic fluid, which emulsifies, and thereby assists in the assimilation of fatty food, suggested to some practitioners its use with cod-liver oil, and it was found that the addition of ten drops of ether to two drachms of the oil had met with very satisfactory results. Oil has usually been given in too large doses, and one drachm three or four times a day is now thought to be sufficient in a majority of cases. Dr. Squibb further stated that he did not think that pharmacists were overstepping the bounds of propriety by giving to the patients such directions regarding the administration of nauseous medicines as might make them more acceptable. He had found that cod-liver oil given in a five per cent. solution of gum arabic, previously poured in a small medicine glass, tended greatly toward covering the taste. Froth from porter was also an excellent vehicle, or some salt herring, eaten just before taking the oil, would make its taste imperceptible. Mr. Lillienschiold said he had found that a little table salt sprinkled upon a spoonful of the oil would destroy its offensive taste, as well as assist in its digestion. Mr. Close prepared an emulsion with *glyconine*, which had proven uniformly successful.

Births, Marriages, and Deaths.

BIRTHS.

On March 1st, at 120 Peter St., Toronto, the wife of A. De La Haye, M.B., of a son.

DEATHS.

At the residence of Dr. Geo. Wright, 243 Simcoe St., on the 4th inst., Mrs. Eliza Wright, widow of the late Joseph Wright, Esq., of Cooksville.

At Toronto, on the 7th of March, Elizabeth, wife of Winford York, M.D., aged 37 years.

THE
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TORONTO. MAY, 1878.

Selections: Medicine.

CLINICAL REMARKS ON INCARCERATION OF THE EPIGLOTTIS, AS A LITTLE-KNOWN FACTOR IN THE MECHANISM OF SUFFOCATION IN FATAL CASES OF SPASM OF THE LARYNX (LARYNGISMUS STRIDULUS) IN CHILDREN.

BY J. SOLIS COHEN, M.D.,

The purpose of this communication is to direct attention to a mechanical factor in infantile spasm of the larynx, which was the immediate cause of death in two cases under my care, and which I am inclined to believe may have been the cause of death in other cases.

In the summer of 1867 I had under professional care a scrofulous male infant, between two and three years of age, with protracted laryngismus stridulus; the suffocative paroxysms, as described by the mother, being unusually intense. On one occasion an intense paroxysm occurred in my presence, and as it failed to yield to cold water dashed upon the face and neck, or to ammonia held in front of the nostrils, I plunged my forefinger deep into the child's throat and felt the epiglottis so forcibly drawn down by the spasmodic action of the aryteno-epiglottid muscles that its free edge had become wedged between the posterior face of the larynx and the wall of the pharynx, occluding the larynx completely. Carrying the finger to the left side of the larynx, I found it comparatively easy to free the epiglottis from its incarcerated position; and with the ensuing deep inspiration of air, the impending asphyxia was averted. The nature of the difficulty was explained to the mother, who was instructed in the manipulation necessary to overcome it. The constitutional remedies and other measures instituted in the hope of subduing the disposition to spasm were unavailing; and the child finally died, some weeks later, in a paroxysm similar to the one described.

The second case occurred during the spring of 1877, in a scrofulous male infant, nineteen months of age. I had the opportunity of verifying the same sort of incarceration of the epiglottis from spasmodic action, on several occasions, one of which was in the presence of an esteemed colleague during a consultation held as to the propriety of performing tracheotomy, in view of the frequent recurrence of the paroxysms. Unfortunately it was determined to defer the decision for twenty-four hours, in order to test the efficacy of large doses of bromide of potassium; and shortly before the early hour fixed for the visit on the following morning, the child died in a paroxysm which the mother was unable to overcome by manipulation, although she had previously succeeded in elevating the epiglottis in several paroxysms.

I am inclined to believe, therefore, that the spasm of laryngismus affects the aryteno-epiglottic muscles, in some instances at least, as well as those muscles which close the glottis; and that the incarceration of the epiglottis, continuing after relaxation of the spasm, may be an immediate cause of death. In undoubted cases of this kind, tracheotomy may be absolutely indicated as necessary to avert asphyxia in a recurring paroxysm of spasm.—*Med. & Surg. Reporter.*

ON CALCIFICATION OF ADIPOSE TISSUE.

Dr. Edward H. Bennett, Professor of Surgery in the University of Dublin, records (*Dublin Journ. of Med. Sciences*, Jan. 1878) an account of calcification of adipose tissue, which it is believed has not hitherto been noticed. The change is seated in the connective basis of the tissue and not in the contents of the cells. Dr. Bennett describes the condition as follows: In the subcutaneous tissue of the anterior aspect of the leg in elderly women, small hard bodies may be often observed—flattened on the superficial and deep aspects, circular in outline, the largest about one-fifth of an inch in diameter, the smallest mere grains. These bodies are freely moveable on the deeper tissues and beneath the skin, and are arranged with a rough symmetry in the two limbs; if there be but one or two in a limb, the finger carried over the corresponding part of the opposite limb readily detects even the single specimen. When they are numerous, their symmetry is similar to that of cutaneous eruptions, not absolutely exact, but very nearly so. They occur in thin-skinned, pale bodies, and so can generally be seen before their detection by the hand. I have never seen them associated with varicose veins, or with skin eruptions, or ephelitic markings on the legs. They are most commonly seen in the limbs of the pauper subjects in our dissecting-rooms; but I have seen them in the living also in hospital. They are not the seat of any trouble or pain to the patient, and pass unnoticed by them until attention is directed to them by the surgeon. I have never seen them in the male. In my early examinations of them, I sought for small veins, or varices, as their seat, under the impression that they were phleboliths. I next searched for a lymphatic vessel passing into or connected to them, being still impressed with the idea that they were the result of some vascular obstruction, but I failed to find any anatomical support for such idea.

Adopting the ordinary process for hard, brittle substances, I polished a flat surface on one face of a section made with a fine saw through the centre of the body, and cemented it to a glass slide with old Canada balsam; I then ground away the structure until I obtained a fine transparent section. In this process I learned that the densest part of the structure was at the circumference—the most open and friable at the centre. Examined, after completing the mounting with fluid Damar varnish, the pattern of the thin circumferential part was clearly seen to be that of ordinary condensed connective tissue, forming a capsule for the body, calcified. In it the usual irregular lacunæ, dark by transmitted light due to gaps in the structure, were readily seen; septa from the capsule passed irregularly through the structure, themselves calcified and showing lacunæ similar to the outer layer. The arrangement of these parts was such as every one familiar with the microscopic appearances of the compound tissues would recognize as that of the envelopes and septa of subcutaneous fat. In the intervals inclosed by these calcified envelopes and septa the mass of the structure appeared arranged strictly in the pattern of the fat cells, the intercellular substance being calcified and breaking with a brittle, glassy fracture. Fearing error in a single observation, I repeated the process with several specimens, and obtained results exactly similar. I next macerated a fresh specimen in a week picric acid solution, to which a minute quantity of hydrochloric acid was added. I established in this way the fact that the earth salts were deposited in the connective tissue forming the capsule and septa of adipose tissue, and in the intercellular structure of the fat cells. The decalcified tissue presents the pattern of ordinary fat, with only the exception that the structures out of which the earth salts have been dissolved are thicker than in the healthy tissue. One point further only remains to be stated—the position of the calcified body in the fat lobule; this I have always found to be marginal, never central. I have never seen any such alteration as I have described in lipomata or in any part of the body except that mentioned above.—*Monthly Abstract.*

At the Matriculation Examination of the London University in January, 1878, 495 candidates presented themselves, of whom 169 passed, and 326 were rejected.

MEMBRANOUS LARYNGITIS, OR CROUP, AS A RESULT OF A "DEFINITE EXPOSURE TO COLD."

BY GEORGE JOHNSON, M.D., F.R.S.,
Professor of Clinical Medicine, Senior Physician to King's College Hospital.

* * * * * * *

A delicate youth who had often suffered from catarrhal tonsillitis, had lately an attack of his old malady. The inflammation, pain, and swelling were less severe than they had been on several former occasions, but there was now the new feature of a distinct, though soft, membranous exudation on the surface of each tonsil. The disease did not extend to the air-passages, and it soon yielded to treatment. The question arose, what was the pathology of the exudation on the tonsil? Was it a result solely of catarrhal inflammation excited by exposure to cold? The house was on high ground near Henley, and no expense had been spared by its wealthy and most intelligent owner to render it not only beautiful and comfortable, but wholesome. There was no reason to suppose that the patient had come in contact with any sufferer from diphtheria. I therefore expressed to the father my conviction that sewer poison was the cause of the peculiar condition of throat. And I heard subsequently that a very offensive smell had repeatedly emanated from one closet at the foot of a staircase, and, later still, that it had been found that, in consequence of some defect in the ventilation of the drains, sewer gas escaped into every closet when the water was rushing down. Here then, I take it, was the explanation of the membranous exudation, which in this case had "followed a definite exposure to cold."

The second case was that of a healthy infant, whose foreskin had to be partially removed in consequence of congenital phimosis. The wound, made by an eminent surgeon, did not heal, and in a few days it was covered by a diphtheritic membrane. The child was the son of a wealthy man, whose spacious house stands on the eastern border of Hyde-park. The two gentlemen in attendance upon the child, feeling sure that the unhealthy condition of the wound was the result of some insanitary surroundings, removed the patient to another house, where I met them in consultation, and where the wound soon assumed a healthy appearance and healed. With some difficulty I persuaded the father to have his house thoroughly inspected, when grave sanitary defects were discovered and corrected. Now, if this child, instead of undergoing a surgical operation, had been exposed to cold, and had thus got a catarrhal inflammation of the larynx, he would very probably have had a membranous exudation on the inflamed mucous surface, and the case might have been reported as one in which "the formation of false membrane in the air-passages had succeeded upon a definite exposure to cold."

The result of my own investigations has been the conclusion that, in the absence of direct contagion, the occurrence of membranous pharyngitis or laryngitis affords conclusive evidence of infection by sewage-poison conveyed through either air or water. It will scarcely be denied that if this doctrine is true, it is of immense practical importance.—*London Lancet.*

Treatment of Delirium Tremens.—Surgeon-Major Willis's note on the treatment of this disease with thirty-grain doses of powdered capsicum is interesting and of much practical value. But on what therapeutic principle are we to account for the capsicum having so powerful an effect? I have recently had similar effects with less than five-drop doses of the tincture of capsicum. Can it be that in both cases the capsicum, as an acceptable and innocent substitute for alcohol, merely put the long splint, so to speak, on the patient's stomach and nervous system, thus securing his quiet acquiescence in what was for the time the *rest of total abstinence?* I confess it was with this impression that I administered the drug; but some special features of the case, and a desire to present to the patient a palatable beverage as nearly as possible in the form of his accustomed tipple, suggested the following prescription:—

℞ Sodæ phosphatis ʒj; syrupi ferri phosphatis, syrupi limonis, āā ʒiss; mucilaginis acaciæ ʒij; tincturæ cardamom. co. ʒj; aquæ ad ʒxxiv. M.

Sig.—*The wine of capsicum.* A wineglassful as required. This was put in a common wine bottle, and was much relished by the patient, who took it at once, and next day passed into a refreshing unbroken sleep of nearly twenty-four hours duration.—D. Tolmy Masson, M.D., Edinburgh.

THE DETECTION OF SUGAR IN URINE.

BY THOMAS BIRT, M.D.

The employment of the fermentation-test for the detection of sugar in the urine is, I am afraid, not so frequently used as it should be. This arises from some little difficulty in the manipulation. To obviate this, I have devised a simple and inexpensive apparatus, which is very easy to use, and gives trustworthy results. It consists of a couple of ounce-and-a-half vials, with their corks, and an empty used sardine tin. The lid of the tin is bent at right angles with its cavity, and affords a support to the two vials, an elastic band or two being used to retain them in their proper vertical position, while the cavity of the tin receives a portion of the urine under examination sufficient to cover the inverted ends of the bottles, thus forming an extemporaneous pneumatic trough, allowing the whole concern to be put in any situation where the required temperature can be maintained. The vials are two of the ordinary "long series" ounce-and-a-half size. The corks are of unequal length, and each has a triangular notch, about one-twelfth of a inch deep, cut through the entire length of one of its sides. This constitutes the whole of the mechanism. In using, the bottles are to be filled to the very brim with the suspected urine. To the vial which takes the longer cork, a little yeast is to be added; the cork is then forced in level with the neck of the bottle. The notch in the cork allows the superfluous urine to escape. The bottle can then be inverted without a particle of air entering, and placed mouth downwards in the stratum of urine contained in the hollow of the tin. The other bottle is to be treated in the same way; but no yeast is to be put in it, and it is to be placed side by side with the other. The bottle containing the yeast is recognized by its longer cork; and if sugar be present, at a sufficient temperature fermentation soon commences. Gas is evolved, and is retained in the upper part of the bottle, while an equal bulk of urine is expelled through the slit in the cork. The bottle with the shorter cork having no ferment added to its contents remains full and unaffected, affording a striking means of comparison. By always using the longer cork for the bottle to which the yeast is added, no mistake can occur. The whole affair, being bound together by the elastic bands, can be safely carried about and exposed to the requisite temperature. The thing is thus done as easily as the copper or other tests. A little modification would afford a quantitative result.—*Brit. Med. Journal.*

(Translated for the CANADIAN JOURNAL OF MEDICAL SCIENCE.)

THE RENAL FORM OF TYPHOID FEVER.

BY DR. CHARLES ANOT.

1. "The typhic process affects the kidney in the same manner as the other organs (brain, medulla, lungs); hence the necessity of admitting a renal form, alongside of the cerebral, cerebro-spinal, and thoracic forms.

2. Recognized by M. Gubler, remarked by M. Albert Robin, and confirmed by M. Hardy, this form has not yet been the subject of a complete description.

3. It possesses a special symptomatology (slight diarrhœa, considerable prostration, extreme adynamia, earthy paleness of the integuments, abundant epistaxis, precocious delirium, very elevated temperature, and but slight exanthematous eruption) and a special urological syndrome (bloody colouration of urine, odour of boiled bread, constant sediment formed by reduced white globules, and casts; albuminuria in considerable quantity).

4. The ordinary form is differentiated from the renal form by a greater intensity of the abdominal phenomena, by a more abundant diarrhœa, by a less precocious delirium, by less elevated temperatures, and by a more confluent exanthematous eruption. The urine is of an orange colouration, sediment is not constant, and is chiefly composed of urates, fat, and phosphates. Albuminuria is not abundant and is transient.

5. The isolated and agminated follicles of the intestine are affected in small number. The kidneys, although voluminous, present the alterations of interstitial nephritis.

6. The renal form may be mistaken for an ordinary typhoid, and, in certain cases, for a primary renal affection.

7. The course and duration of the disease vary; the termination is generally fatal.

8. Variations occurring in the quantity and in the composition of the urine render the prognosis favourable or the reverse.

9. The patient should be placed upon a milk diet, and above all things the use of cold baths must be interdicted."—*L'Union Médicale.*

Surgery.

ON THE MEANS OF PREVENTING THE FORMATION OF CYSTO-PHOSPHATIC DEPOSITS.

BY SIR HENRY THOMPSON, F.R.C.S.,

The operation of lithotrity is occasionally followed by chronic cystitis with painful symptoms, and by frequently recurring production of the cysto-phosphatic deposits previously described. This condition may persist for a long period, and it may sometimes never wholly disappear. The numerical proportion of these unsatisfactory cases to those which are wholly successful is happily small; and even that may probably be diminished by the exercise of judgment on the part of the operator, and by his conformity to certain rules in operating. There are two points to which it is nccessary to pay special attention in order to avoid the unfortunate results in question. The first is, not to apply the crushing operation to any stone of a size beyond that which may be termed strictly moderate, a term which it is difficult to define, but which is designed as a caution against regarding lithotrity as desirable for calculi of large size; the second is, not to delay unnecessarily subsequent repetitions of the sitting when the stone has been attacked by the lithotrite.

These rules are established by practical experience of the operation; but the correctness of the principles enforced is also exemplified by the pathological observations described in the preceding paper. That which has happened to patients who are troubled long after the operation with recurring concretions is, without doubt, a serious injury to mucous membrane of the bladder, permitting a phosphatic deposit to adhere to some portion of its surface. This deposit increases by aggregation, and is detached in some form as a concretion, which produces symptoms relieved only by its removal. The process is repeated periodically, sometimes with lengthening intervals of time, and with a tendency to cease, if due care be taken, although the term of recovery is often a long one. In other cases, the tendency steadily increases, and the opposite condition follows.

In speaking of injury to the mucous membrane, I by no means imply injury through the use of instruments. Little harm occurs from the modern lithotrite in delicate and careful hands, a remark which does not apply to instruments of early construction. With the latter, injury was often inflicted on the bladder, and strong objections were long entertained to the operation on that account, and very justly so. The causes of injury to the membrane already described as resulting in loss of polish and in roughness, which attracts phosphatic precipitate, are threefold.

First: This morbid change may be caused by the long residence in the bladder of any calculus, particularly one with harsh, uneven surface, and so may have already taken place before the patient seeks relief from the surgeon. In this stage, whatever may be the composition of the stone, the enveloping crust is phosphatic, and the symptoms are severe. Such a condition is no doubt best met by lithotomy, under almost any circumstances.

Secondly: The bladder being healthy, an operator may crush a stone, say of uric acid, but of a size which, although quite within the mechanical power of the lithotrite to crush safely, is still too large to be disposed of in four or even five sittings. There is then some risk that from much contact between the sharp angles of broken stone and the mucous membrane of the bladder, which must take place, abrasions commence, all of which do not heal, and the inner coat is left, at the conclusion of the process, bruised, sore, and slow to recover the natural condition. This might probably have been regained after two or three sittings; but four, five, or six have been more than the membrane could sustain with impunity. With a stone of this size also it is probable that lithotomy would offer equal, if not better, chances of a successful result.

Thirdly: The bladder being healthy at the outset, and the stone not necessarily being large, but one well adapted for successful treatment by lithotrity, the operator may permit considerable intervals of time to elapse between each sitting. He may do this in the hope of diminishing irritation or inflammation resulting from the previous sitting, desiring not to arouse more disturbance, as he may think, by again applying

the lithotrite; and many days may be allowed to elapse in an attempt to combat the existing troubles by rest, medicine, baths, &c. Meantime there is prolonged contact between the rough fragments and the mucous membrane, and damage to the latter is surely taking place. The best remedy in such circumstances is again to crush and so reduce the irritating fragments to fine débris, which, moreover, is largely removed at the same time. I have often seen urine which had been purulent and bloody for days become almost clear within four hours after the use of the lithotrite. At every point of contact between the numerous sharp angles of broken fragments and the delicate lining of the bladder, a minute ulceration commences, and gives issue to a little blood; no sooner are the fragments crushed than the wounded points rapidly heal, and the bleeding ceases. But if the intervals between each crushing are prolonged, dangerous contact is prolonged also, and by repetitions of this error the bladder is brought into a condition in which more or less permanent mischief is sustained, and the phosphatic trouble commences its chronic course. In order to avoid this, then, I repeat that it is essential not to prolong the intervals between each sitting beyond two or three days, unless there is some more important reason for doing so than the presence of cystitis, which is, on the contrary, a ground not for delay but for action. Indeed, no occurrence except repeated attacks of fever or severe orchitis should postpone the use of the lithotrite when the operation has once been commenced.

The next practical question for consideration is the treatment of the bladder itself when phosphatic deposits and concretions are formed there, and show a tendency to remain, or, after expulsion, to be again produced.

The first condition indisputably necessary to success is that the organ, if incapable of emptying itself, should be artificially emptied by the patient in the easiest manner, as often in the twenty-four hours as his comfort demands, and never less than twice a day, however small the quantity left behind. Next, as organs thus affected are by no means always quite emptied, even by the catheter, a small quantity of warm water should be injected once, twice, or thrice daily after catheterism, to wash out the remaining urine if any such there be, and the phosphatic precipitate, which will be certainly found therein. For this purpose the four-ounce indiarubber bottle with brass nozzle and stopcock is the best instrument; one-third only of its contents is to be injected at a time, and this quantity is to run out before the succeeding third is introduced. To the water should be always added either carbolic acid in the proportion of one grain to the ounce, or the solution of permanganate of potash (Condy's), six or eight minims to the ounce. Either of these disinfectant solutions, the first-named being perhaps mostly preferable, should be employed as preliminary to all other injections; they are not in the slightest degree irritant to the bladder and they deodorise and cleanse the interior. Further, and this is a fact of some importance, carbolic acid does not decompose any solution of metallic salts which it may be desirable to inject immediately afterwards. It ought not to be necessary to add, in passing, that all instruments should be placed, before and after use, in a bath of carbolic acid solution, but double the strength of that mentioned above. This, of course, relates to all instruments which are at any time or for any purpose to be introduced into the urinary passages.

The bladder being thus kept in good sanitary condition, the next consideration is, what agents are to be employed to promote healing action in the diseased mucous membrane? The best are salts of silver, copper, and lead, very weak solutions of which should be used at the first occasion of applying them, watching carefully the result before augmenting their strength, and doing so very gradually. The nitrate of silver should at first not exceed in strength the proportion of one grain to four ounces of distilled water; even one to six ounces is preferable if a patient is more than usually susceptible. It should always be preceded by a cleansing or deodorising injection, to remove from the surface to be acted upon the muco-pus which is coagulated by the solution of silver, and tends to hinder contact with the agent. This injection is to be employed in the gentle manner directed above for the first application. If very little inconvenience follows, a slightly stronger solu-

tion should be used after an interval of two or three days, always avoiding an increase in strength sufficient to produce any severe or long-continued pain.

Sulphate of copper should be applied in the same proportion—viz., one grain to six or four ounces of distilled water. An acetate of lead solution of the same strength is a valuable agent, to be used daily, or even twice a day, by the patient himself; but the sulphate of copper, like the nitrate of silver, is to be repeated only every alternate or third day, according to results. It may be remarked here that in the treatment of chronic vesical hæmorrhage by astringent injections, such as the solution of matico, or of perchloride of iron, the same rule in relation to the carbolic acid solution, and to the manner of injecting, should be followed. In the last named condition, also, the temperature of the injection may be lowered to 40° or 50° F., while, in relation to the subject under consideration, the temperature should not differ greatly from that of the body.

For the removal of small concretions, the eight-ounce elastic bottle, with a large brass nozzle overlapping a No. 10 or 11 gum catheter (described in *The Lancet* of Jan. 8th, 1876,) produces an excellent current, not only inwards but outwards, by expansion of the bottle; and Mr. Clover's aspirator, so useful for débris in lithotrity, or for removing last fragments, is equally valuable here. But the object of the injections above described is not to remove deposits from the bladder, but solely for the purpose of acting on the mucous membrane, so as to hinder their formation, and aid in producing a healthy surface, to which they will no longer adhere. By systematically carrying out the plan laid down as soon as they appear, whether after lithotrity or in connection with chronic disease of the bladder and prostate, the complaint can generally be greatly mitigated, and sometimes it is effectually cured. — *London Lancet.*

Old Corks Made New.—Soak in hot water for a day, wash repeatedly and soak in a mixture of hydrochloric acid one part, and water fifteen parts. After a few hours soaking wash well and dry.

FOREIGN BODIES IN THE ŒSOPHAGUS.

* * * * * * *

The following is the substance of a paper read by Professor B. von Langenbeck to the Berlin Medical Society on "Foreign Bodies in the Œsophagus and Œsophagotomy:—Surgeons before administering chloroform to elderly people should ascertain with certainty the existence of false teeth, and insist upon their removal. In the removal of large foreign bodies the finger is the instrument to be resorted to before all others; and if they are too firmly fixed to be removed by it, then forceps or levers should be used. Tracheotomy is always too late in such cases. When, also, small-pointed foreign bodies—as needles, fish-bones, &c.—are detained in the pharynx, and especially in the sacculi formed by the ligamenta glosso-epiglottica, the finger should never be omitted to be introduced, in the hope of bringing the body into the mouth, or at all events to ascertain its exact position before employing the forceps.

A peasant applied to the lecturer for relief, having thirty hours before attempted to swallow a huge piece of sinewy meat, which, being retained, almost induced suffocation. Repeated attempts were made to remove the foreign body by means of a slightly curved, strong forceps, but it proved immovable, only some of the fleshy fibres coming away. Œsophagotomy was contemplated, as during the attempts at removal the difficulty of respiration was so greatly increased; but the projecting tumour having been seized by the fingers in the neck, raised from the larynx and compressed for some minutes, the respiration became much more free. The foreign body, although not moving from the spot, had assumed through this manipulation, a more elongated form, and was removed by means of the forceps with some exertion of force. Another man applied on account of the obstruction to respiration and swallowing caused by a pretty large piece of tough meat which had for twenty-four hours obstructed the same part of the œsophagus. Violent retching, caused by tickling the fauces and attempts with the forceps to withdraw or thrust it down, failed to dislodge the body

which was placed as in a diverticulum of the left side of the œsophagus. The tumour which it formed in the neck was then seized with the fingers and squeezed so powerfully that the body slid down into the stomach. Dupuytren dealt with a potato in the same way, which had resisted all attempts to withdraw it or force it into the stomach. The general and almost traditional practice of employing the probang, either for the withdrawal or for the thrusting down of the foreign body, cannot be too earnestly deprecated. A more irrational practice can scarcely be imagined, and no other instrument has done so much mischief in proportion to the number of cases in which it has been employed. By it we are able to ascertain neither the situation nor the condition of the foreign body; and, in place of its withdrawal or propulsion, it sometimes becomes only forced deeper into the œsophagus, and even (as in two cases which the lecturer has met with) is thrust through the wall of the œsophagus into the mediastinum. When soft bodies obstruct the œsophagus, the forcing of which into the stomach is desirable, the probang may be used; but in all cases when the condition and position of these are unknown, or their extraction seems possible, catheterism must first be performed. For this purpose Professor von Langenbeck uses a whalebone staff, to the lower end of which is attached a smooth polished iron ball. This, when well oiled, slides readily down the œsophagus by its own weight, is easily movable to and fro, and enables us to detect with certainty hard bodies, such as coins, needles, and pieces of bone. If the object is to force into the stomach a harmless substance, the nature of which is known, he employs an elastic œsophageal sound; this acts upon the foreign body as efficaciously as the probang, but slides down the œsophagus far more easily, and renders injury much less possible. Foreign bodies which may wound the œsophagus, or become dangerous in the intestinal canal—such as bone, fragments of glass, coins, needles, etc.,—should, in Professor von Langenbeck's opinion, be always extracted, their extraction being a far more certain and less dangerous procedure than forcing them into the stomach. In a great number of such operations he has never met with any accident. The instrument which he exclusively employs for this purpose is Von Graefe's coin-extractor. This passes with facility, and without any injury, into the œsophagus beside the foreign body, and during its withdrawal seizes it with a certainty that leaves nothing to be desired. Prior to its introduction, some oil should be introduced into the œsophagus, and then the end of the instrument should be guided by the left forefinger over the root of the tongue and epiglottis against the back of the pharynx, and thence into the tube. On withdrawing it very carefully, if the least resistance is encountered we must desist, and move it gently to and fro in order to disengage it from any possible entanglement in the mucous membrane. When the instrument with the foreign body has arrived opposite the cricoid cartilage, difficulty in completing the extraction is caused by the cartilage springing backwards; but this may be obviated by pressing the end of the instrument, which has now become visible, against the posterior wall of the pharynx. When the isthmus faucium has been reached, we should always, and especially with restless children, have the left forefinger in readiness, in order to seize hold of the foreign body, which might otherwise escape. A pair of firmly grasped pharyngeal forceps, and this coin-extractor, constitute all the apparatus required.

There is, however, one inconvenience attending the coin-extractor that must be noticed, viz., when the foreign body becomes so firmly wedged into the extractor that this cannot be loosened from it and withdrawn. Professor Adelmann relates a case in which the extractor, thus embracing the foreign body, could not be removed during two days. In the case of a girl who had swallowed a shawl-pin, which occurred to the lecturer, its position at the lower end of the œsophagus having been detected by means of the sound armed with the iron knob, it was seized by the coin-extractor. So firmly, however, had it penetrated the œsophagus that it could not be withdrawn; and, after repeated efforts, when the attempt was abandoned, the instrument could not be separated from the pin until after half an hour, when the pin slipped into the stomach. Bloody stools followed, and the patient complained of great pain in the

stomach for a month after the accident, but the pin has never been found.

When the removal cannot be accomplished, and the nature of the body does not admit of its being thrust into the stomach, when the cervical œsophagus is the part of the tube concerned, we should perform œsophagotomy. It is a comparatively rare operation, for, according to König, from the time of its first performance by Goursault in 1738 to 1872, it has only been executed twenty-six times for the removal of foreign bodies. Its indication has been generally believed only rarely to occur, while its danger and difficulty have been exaggerated; and an examination of recorded cases of foreign bodies in the œsophagus shows that it should have been performed much more frequently, and that, without doubt, many lives might have been saved by it. The twenty-six operations referred to by König, and two now related by the lecturer, were followed by twenty-three recoveries and five deaths, some of the latter being due to the too prolonged residence of the body; so that the operation must be regarded as one attended with very little danger. Almost all living surgeons agree that the mode of making the incisions recommended by Guattani is the best, the skin on the left side of the neck being divided from the middle of the thyroid cartilage to the anterior edge of the sterno-cleido-mastoid, and to about five centimetres above the manubrium sterni. After the superficial fascia has been divided, the sterno-cleido is drawn outwards and backwards by means of double hooks, and the common carotid then becomes visible through the middle cervical fascia. The fascia is to be divided in the direction of the long axis of the wound, and drawn outwards and backwards by means of strong hooks, the carotid being kept out of the operation-field. It must not be forgotten that this artery lies more superficially than the œsophagus, and that the latter only becomes visible after the deep cervical fascia has been divided. This is done at the outer edge of the sterno-thyroid muscle, after having drawn the larynx by means of a hook to the right side. The muscle being now drawn towards the median line, the œsophagus becomes visible. Before opening it an œsophageal sound, made of gum-elastic or pliable metal, should be introduced for the purpose of projecting the œsophagus more to the left, and rendering its opening more easy and certain. The separation of the fascia in order to expose the œsophagus is best accomplished by raising it by means of two hook-forceps and dividing it between them, allowing the knife to act more by its pressure, thus avoiding injury to the inferior thyroid artery and inferior laryngeal nerve. Injury to the recurrent nerve is not much to be feared, as this passes upwards between the trachea and œsophagus, and is with the former organ drawn towards the right; it is only in question when a foreign body of large circumference thrusts the œsophagus far towards the left. One circumstance may render the access to the œsophagus exceedingly difficult, and is of the more importance, inasmuch as it is not noticed in any of the descriptions of the operation. This is the tumefaction of the thyroid gland. If a large foreign body be detained for several days opposite the cricoid cartilage, causing difficulty of respiration by pressure on the larynx, swelling of the thyroid due to a stasis of the blood in the veins is always present. The tumefied gland lies so much over the œsophagus that this may be entirely covered by it; and in order that the gland may be raised from the œsophagus its enveloping fascia must be divided.

Professor von Langenbeck terminates his communication by the narration of two cases in which he performed œsophagotomy with success for the removal of false teeth.—*Summarized from Medical Times and Gazette.*

A Successful Gastrotomy.—Dr. F. Trendelenburg reports in the *Wiener Med. Presse* another successful case of gastrotomy to be added to the hitherto unique case of Verneuil. A boy aged seven years, the subject of impassable stricture of the œsophagus from swallowing caustic potash, had fallen into extreme marasmus. Gastrotomy was performed without bad effects, and two days afterwards nourishment could be introduced into the stomach through the small resulting gastric fistula. A small drainage-tube of the thickness of the little finger was introduced into the fistula, into which was passed a thicker glass tube having attached to it an elastic gum catcher reaching to the mouth. When the boy wants to eat, he chews his food and expels the mastigated mass through the tube into the stomach. Four months after the operation, the boy's weight had increased by a fourth.

(Translated for the CANADIAN JOURNAL OF MEDICAL SCIENCE.)

ON FOREIGN BODIES IN THE URETHRA AND BLADDER.

BY PROFESSOR WEINLECHNER.

[From the *Wiener Med. Wochenschrift.*]

Cases in which foreign bodies are found in the urethra and bladder are by no means rare. Scarcely a year passes without the surgeon of extensive practice meeting with one. They are of great interest not only on account of the danger incurred but also on account of the amount of skill required for their successful treatment.

A very great variety of foreign bodies has been found in the urethra and bladder. They may be divided into two classes, those which are introduced from without and those which are formed in the bladder itself. Of the first class, the most common are, needles, needle cases, lead pencils, quills, stalks, charpie, straws, fruits and fruit stones, pieces of wood, catheters bougies, sounds, ear spoons, and similar instruments, pieces of sealing wax, pieces of wax, pebble stones, pearls, bullets, glass drops, splinters of bone, pipe stems, small brushes, glass tubes, forks, pieces of leather, &c. They are introduced in various ways.

They are often introduced in play or in order to lessen the difficulty of passing water, but most frequently in order to produce sexual excitement. Denucé ascribed to the latter cause 258 cases out of 351. Men and women participated in this form of sexual abuse in about equal numbers, and the articles they use generally vary with their particular employments. Males generally use lead pencils and penholders: with women, needles and needle cases are the favourites.

Cases also frequently arise from surgical manipulation in which instruments or parts of them are allowed to remain in the urethra or bladder. Sometimes the instrument used breaks off in the urethra and sometimes it slips from the hand of the operator and is drawn in, owing to a peculiar power which that canal apparently possesses of taking up anything which may happen to pass into it. The substances in this class of cases are found much more frequently in the bladder than in the urethra. Out of 225 reported cases, in 208 they were found in the bladder and in 17 in the urethra.

Less frequently cases are found in which foreign bodies are introduced by wounding of the surrounding tissues, as in sword wounds, those from bullets, &c.

A case is reported in which Schule removed from the bladder of a peasant a small piece of linen, which the patient asserted was a piece of his pants. He had some time before fallen on a wood paling and a piece had been driven into the bladder.

Patients, however, are very willing to ascribe to accidents what really has happened through their own bad deeds. Frequently the patient does not come for advice until after the foreign body has been some time in the bladder or urethra and has become encrusted by excretions. Sometimes nothing is said about the presence of any foreign body at all until the surgeon meets with it in the operation. Prof. Wesser of Prague has shown me a piece of steel about the size of the largest catheter, rounded at the end, which an iron worker had put up his urethra.

The patient allowed the lithotrity operation to be quietly proceeded with when the hard substance was come in contact with, and afterward removed by cutting into the bladder. The same operator has kindly shown me a glass bead which he had removed by section. The possessor suffered from self-abuse, slept over night with a clergyman and put the bead up the urethra, as he said, to prevent the bed from becoming soiled by the emission of semen. When once the foreign body has reached the bladder it may remain a long time without giving much trouble. There is one instance reported in in which a needle had been removed from the prostate after it had been sixteen years there.

Finally, foreign bodies find their way into the bladder by pathological processes. A case is related in which Watson of Baltimore removed shot grains from the bladder of a woman who had previously eaten game. The grains having remained in the game passed into the bowels and found their way by ulceration from the rectum into the bladder. Other instances are given in which foreign bodies have thus passed into the bladder. The bladder may become the resting place of the remains of a fœtus in cases of extra-uterine

pregnancy, of necrosed bone in disease of the plevis, also of parasites, and finally, calculi.

As we have before stated, foreign bodies may exist in the bladder for a long time without causing much injury, but in some cases they immediately set up diseased processes which destroy life. In 21 out of 420 reported cases death resulted from inflammation, extravasation of urine, &c. In many cases after a time catarrh of the bladder, inflammation, formation of stone, &c., lead to a fatal end.

As a general rule, it is not difficult to determine the presence of foreign bodies, one examination with the sound being sufficient. Sometimes, however, owing to the smallness or lightness of the body, the diagnosis is more difficult. In these cases it is better to examine carefully when the bladder is empty. This is especially of use in cases where the substance, owing to its lightness, swims on the surface of the fluid. Pascal mentions a case in which a piece of wadding had been discovered when the bladder was empty which could not be found when it was full. It is not difficult to find foreign bodies in the urethra unless they are very small.

When the presence of the substance is positively made out it is of great importance to diagnose the form and the exact position of it. In order to proceed rationally the surgeon ought to satisfy himself whether the body is large or small, hard or soft, long or round—if it is long, in which diameter it lies ; whether it is free or fast, and whether there be one or more. These facts may be made out by the sound, by examination through the rectum and by the lithotrite. With the latter instrument one may find out the different diameters, the consistence and the brittleness of the substance.

After the diagnosis has thus been determined, the next and most difficult part is the removal. The operation should be undertaken after full deliberation and carried out with great care.

I will here relate a case of my own experience :

E. N., aged seventy, suffered for some years from enlarged prostate and had frequently to pass the catheter on himself. On the 10th May, 1872, while he was using a gum-elastic one, it broke off in the centre, leaving a part in the urethra and bladder.

Two specialists were called in: the one recommended cutting into the urethra and thus removing, whereas the other advised removing with the urethral forceps. The latter plan was adopted, and after a good deal of trouble, the piece was removed. During the operation needles were passed through the corpus spongiosum and urethra in order to fix the catheter.

Soon after the removal of the foreign body a swelling appeared in the corpus spongiosum and in the left corpus cavernosum, accompanied by severe chills and fever. On May 14, I was called to see the patient: found the penis very much swollen, fluctuation and crepitation over the swelling. An incision was made and some ichor appeared. The patient could not urinate. A catheter was passed. Afterwards some urine passed through the wound. On May 15th, the corpora cavernosa appeared to be inflamed and filled with ichor. On the next day, the patient, who was before a strong, healthy man, died comatose.

An old gum-elastic catheter should not be used unless it has been specially examined. When one is used and unfortunately breaks in the urethra it would appear from the case given above that it would be better at once to cut into the urethra than attempt to remove it with the forceps unless the latter operation can be easily performed.

[In connection with this subject the translator might mention a case reported in this journal about two years ago. Some companions of the patient, while he was in a state of intoxication, introduced a pipe stem into his urethra: it then found its way into the bladder. Some months afterwards he came into the Toronto General Hospital, when Dr. Aikins performed lateral lithotomy and removed the pipe-stem thickly encrusted with urinary salts. The patient made a good recovery. Another case is also illustrative of this subject. An old man who had suffered for some years with enlarged prostate and occasional difficulty in urinating came to me, having a needle about four inches long, with a glass bead on the end, in the urethra. He had passed it himself in order to facilitate the passage of urine. The sharp end of the needle could be distinctly felt in the urethra immediately in front of the scrotum, the beaded end being in the bladder. An incision was made into the urethra and the foreign body removed. The wound healed rapidly.]

SPONTANEOUS AMPUTATION OF A GANGRENOUS LEG AT THE KNEE-JOINT, UNDER THE HOT WATER TREATMENT.

December 18, 1877, John Meagher, aged about 25 years, a switchman on the Long Island Railroad, was run over by two platform cars. During three days, he remained under the care of a physician at Hunter's Point, refusing to submit to amputation.

December 21, he was admitted to my wards, Bellevue Hospital. My House-Surgeon, Dr. W. S. Halsted, who examined him at once, and who was throughout in immediate charge of him reported to me that he was, on admission, pale, and a little bronzed—his breath had a slight saccharine odor, the surface of his body was cold, his pulse weak, thready, and rapid. He was delirious, talking in a low voice and incoherently.

The right thigh had suffered a severe laceration just above the knee; the wound being about ten inches long, and closed by sutures. It was emitting a strong gangrenous odor. On removing the sutures, the underlying structures were found extensively contused, the bone bare, and the wound filled with masses of undetached gangrenous tissue.

His left thigh was broken about three inches above the knee-joint, the upper fragment penetrating the joint. The whole limb was cold, swollen, discoloured, emphysematous and pulseless.

His condition did not warrant an amputation. In this opinion, Dr. Wood and the House Staff concurred. A long splint was laid beside the broken limb and secured by bandages, heat applied to the extremities, a weak solution of carbolic acid was employed to correct the fœtor, and nourishment was stimulants were administered. Speedy death was anticipated.

On the following day, his mind was more clear, but he was still very feeble, and the gangrene was extending in both limbs. Amputation was advised, but the parents refused their consent.

December 23.—Gangrene still extending; in the left leg involving the whole limb as high as the knee, and a discolouration existing as high as the groin.

The entire left leg and thigh were now enveloped in cotton batting, saturated with hot water—water at about the temperature of one hundred and ten degrees of Fahrenheit—and the laceration on the right thigh was treated in the same manner. Outside of the cotton batting, each limb was enclosed in oiled silk, and the patient was made to repose on a sheet of oil-cloth.

From this time, December 23, to when the left leg was removed at the knee-joint, the hot water was renewed every twenty or thirty minutes, day and night.

December 25, the discolouration, suspected to indicate approaching gangrene, has nearly disappeared from the left thigh, above the fracture. A line of demarcation is forming at the knee-joint. Delirium abating. He begins to take food. Rests well.

December 29, no delirium. Says he feels well.

January 6, 1878, nineteen days after the receipt of the injury, and thirteen days after the commencement of the hot water treatment, the separation at the left knee-joint was so nearly completed that with my scissors I cut the remaining sloughy bands, and removed the leg, without inflicting pain or causing the loss of more than a few drops of blood.

The gangrenous slough had already separated from the opposite thigh.

January 7, removed to a water bed, being threatened with a bed sore.

January 15, right knee painful and swollen, but on the following day a profuse discharge occurred from the wound above the knee—probably from the joint—and the patient was relieved.

January 22 to 31, three or four small abscesses appeared on right limb and were opened.

February 8, last report, patient gaining in strength; wounds healing on right limb. Lower fragment of femur, (left limb,) projecting, and the necrosed extremity of bone gradually separating from the shaft. The lower fragment, about four inches, including the joint surface, dead, but still hanging by two bands of living soft tissue. Granulations healthy and cicatrization progressing; water dressings discontinued when the leg separated; balsam of Peru being substituted. His final and complete recovery is now assured. Possibly after a time resection of the bone may be required to make a good stump, but probably not. The lower fragment might be removed at any time with the loss of a little blood, but it has been deemed advisable to wait until the patient's strength is better established.—*Hospital Gazette.*

MR. MESSENGER BRADLEY'S ANTISEPTIC TREATMENT OF WOUNDS.

* * * * *

It is unnecessary for me to say there is nothing original about my plan; it is necessary, however, that I describe it. In the first place I thoroughly cleanse the skin with carbolic soap, even rubbing off the outer layer of cuticle, thus removing all clinging germs. I take care that all instruments, etc., are perfectly clean. After performing the operation I fill the wound with some antiseptic, generally selecting No 20 solution of carbolic acid, although many other preparations, such as chloride of zinc, or sulphate of iron, or nitrate of silver, seem to possess equal germicidal powers. I then take pains to render the wound as dry as possible, after which the sutures are introduced and the wound dressed with four or five folds of lint thoroughly well saturated in a mixture of carbolic acid and glycerine. Over all I place either a pledget of carbolised tow, or dry lint, or cotton-wool. If the subsequent discharge be abundant, I at once liberate some of the sutures, to give free vent to the discharge, and have the wound dressed at least twice a day, otherwise the wound is dressed once a day. I carefully avoid using water in any shape or form, squeezing the matter out, not syringing it out, and wiping with dry, not with wet, lint. It will easily be understood that there are cases where the position of the pus, etc., renders it impossible to remove it altogether by pressure; this, for instance, is the case when the knee-joint, or indeed any joint except the hip-joint, is opened; then it becomes necessary to wash out the discharge with the syringe. When this has to be done, I am in the habit of using a solution of permanganate of potash in preference to carbolic acid, and take care that the syringing is thorough, and performed twice in the twenty-four hours, so as to give little time for decomposition to take place. Irrigation in this case is good; indeed, it is excellent; but it is somewhat messy and involves some exposure to cold, which is not always desirable or safe. There are two other conditions where the syringe comes into play, which I may take this opportunity of alluding to; I refer to the treatment of sinuses and abscesses. Speaking of the first, and supposing that all dead bone, etc., is removed from the bottom of the sinus, and that the granulation-tissue round the orifice is removed with the knife or scissors, I believe the best plan to secure closure of the entire sinus is to thoroughly flush it every day with a mixture of tincture of iodine and water (one to seven). Abscesses are, in my opinion, much better and more successfully treated on Callender's plan of superdistension, especially if pressure be exercised afterwards, than by the method of Lister. This at least is my experience, which in this respect, I believe, is in accord with that of some of my colleagues. You, of course, will ask me what proof I have that such a plan as the one I have detailed merits the term antiseptic equally with Lister's, and my answer is: I have given you my statistics, which, I think, will bear comparison with those of his followers; but I chiefly rely upon experimental proof.

You will please to bear in mind the two mutually supporting evidences we have of putrefaction: the presence of bacteria and the exhalation of ammonia. I make no mention of such questionable evidence as the smell or colour of the discharge.

Well, gentlemen, submitting my cases to this double test, I believe I am entitled to say that I practise antiseptic surgery; *e.g.*, among several similar experiments, permit me to mention the following:—A fortnight ago, I took the first four operation cases in the female wards, and, with two of my dressers (Mr. Challinor and Mr. Pownall), examined the discharges by the double test of the microscope and Nessler's solution. The cases chanced to be an amputation of the thigh performed three weeks before, a carcinoma on the chest, a lipoma of the neck, and an excision of the elbow, all operated on ten days prior to the examination. Besides these, we examined a case of ligature of the subclavian artery with another of my dressers, Mr. Williams, in the men's wards, of a week's standing. In none of these were bacteria to be found, and in none was ammonia to be detected. But understand my position: I do not claim for this plan that it will certainly prevent putrefaction; for I know that, in some cases, putrefaction does

occur, and, in my opinion, do what we will, ever will occur from time to time. What I allege of it is, that it is just as efficient as the more costly and cumbersome plan of Lister; and, in my opinion, this is no small boon. To the army surgeon, toiling in such a terrible war as is now raging, the simpler method I advocate is surely incomparably better, inasmuch as it is practicable, while the other is not. But even to the surgeon engaged in hospital and general practice, the advantage of simplifying Lister's plan is considerable; for I am daily more and more convinced that such matters as the mysterious spray, and the patent character of the dressings, act as a real hindrance to the comprehension and general adoption of the true principles of antiseptic surgery.—*Brit. Med. Jour.*

ON THE COLD-SOUND (PSYCHROPHOR).

Dr. Winternitz of Vienna (*Berliner Klin. Wochenschrift,*) has designed an instrument, by means of which he secures the advantages of mechanical irritation of the urethral mucous membrane by the metallic sound, combined with the anæsthetic and tonic influence of cold. It consists of a double-current catheter without eyes, the two canals communicating with one another near the point of the instrument. The instrument is introduced into the urethra until its point has passed the prostatic portion, and it is then attached by India-rubber tubing to a reservoir containing water at the desired temperature. On turning a stopcock, the water flows into one canal and out through the other, whence it is conducted away by another piece of tubing. In this way the caput gallinaginis and the entire urethral mucous membrane are exposed to the mechanical action of pressure, and to the sedative action of cold. The success obtained by Dr. Winternitz, by the use of this instrument, was so encouraging from the very beginning, that he has employed it constantly for over a year.

He has treated with it twenty-two cases of pollution. Of these two did not return after the first application; one was improved at first, but soon became as bad as before, and the treatment was discontinued after the cold-sound had been used sixty-five times; twelve are still under observation, and have been somewhat improved by the treatment, the pollutions occur very rarely, and the secondary symptoms, hypochondria, etc., have entirely disappeared. In three cases the improvement was marked when the patients withdrew from observation; in two others the pollutions became less frequent, but the secondary symptoms remained unchanged.

At the first sitting Dr. Winternitz sometimes uses water at a temperature of 64° or even 66° F., and at a later period sometimes goes as low as 54½° F. Besides the above, he has treated nine cases of spermatorrhœa with the cold-sound. In four of these cases he obtained very favourable results; two cases were very markedly improved, while in the other three the treatment was without special results. In the cases of spermatorrhœa as well as in those of pollution, in which the treatment proved successful, general relaxation of the genitals and loss of muscular tone in the scrotum were marked symptoms. The cold-sound was also used in five cases of too rapid ejaculation during coitus, and in two cases of obstinate chronic gonorrhœa. In the former, its use was followed by at least temporary improvement, and both of the latter, one of which had lasted three years and the other six months, were cured.

Apparatus for the Treatment of Transverse Fracture of the Patella.—The President brought before the Society a patient fitted with this apparatus, which he had employed for some time past at St. Bartholomew's Hospital. It consisted essentially of a sheet of plaster fitting to the thigh and extending to the upper margin of the patella, with loops on each side of that bone, and of a canvas slipper, between which, acting from the sole of the foot, and the loops in the plaster, such extension was made by means of pulleys as sufficed to draw the upper fragment down to the lower portion of the broken bone. It was easy to regulate the tension; and, when it was thought well for the patient to get up, the apparatus was left on, as it acted just as well when the man was walking about as it did whilst he was recumbent in bed. Practically the appliance had been found to insure very good results.

Midwifery.

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Hôpital de la Pitié.

PHLEGMON OF THE BROAD LIGAMENT.

BY M. DUMONTPALLIER.

In bed No. 23, of Ward Sainte Eugénie, there has been lying for some days a patient who is worth your observation for a moment. Here is her history in a few words. She had been admitted into the Hôpital Saint Louis for her confinement, and had left it on the ninth day after delivery in a satisfactory condition; she had scarcely returned home when, after some excessive exertions, she was seized with sharp pains in the belly, in consequence of which she sought admission to our wards. Upon examination we recognised the existence of a phlegmon of the broad ligament. The following are the symptoms upon which we based this diagnosis.

There was found to the right of the median line of the abdomen, a little below and to the inner side of the region occupied by the ovary, a hard tumour of triangular form, the base of which was in contact with the uterus and the apex directed towards the anterior superior iliac spine. On vaginal touch it was remarked that the cervix was carried backwards, and that the whole of the space which forms the anterior vaginal *cul-de-sac* was filled by another tumour presenting the same hardness as that of the anterior abdominal region, continuous with it, and forming one body with the uterus. An important fact from a differential diagnostic point of view was this, that the retro-uterine *cul-de-sac* was absolutely free, and that whether the vaginal touch was practised, or the finger was introduced into the rectum, no trace of a tumour continuous with the others could be found in this part. It was not then the peritoneum, but the broad ligament, which was the seat of the lesion, which extended throughout the cellular tissue, and pressed the anterior surface of the inflamed broad ligament into contact with the corresponding part of the abdominal parietes. Thus was to be explained the displacement of the cervix backwards whilst the body of the uterus maintained its normal situation.

Phlegmon of the broad ligament when it occurs in the puerperal state has a very great tendency to terminate in suppuration. It has its point of departure in the uterine veins, or in the lymphatic vessels, or sometimes in the ganglions of this region. The first are most frequently affected, then come, in order of frequency, the lymphatics, and lastly the ganglions. But up to the present but little has been known of these last. So we shall leave them on one side, and only occupy ourselves with those perfectly characteristic cases in which the disease begins in one or other of the sets of vessels which we have just named.

When we reflect upon the anatomo-pathological alterations of which the uterus is often the seat after delivery, we cannot help being astonished that women, and especially those of the working class, are not oftener the subject of accidents after parturition. In fact, after *accouchement* there is a wound, corresponding to the insertion of the placenta, and generally occupying the fundus uteri. When we observe this wound, we always find in the veins, already partly retracted upon themselves, a demi-fibrinous, demi-cruoric clot, fibrinous on the side of the central circulation, cruoric on the side of the wound, on the surface of which small projections are observed which are only vestiges of these clots. But, it very often happens that in consequence of certain puerperal conditions, under the influence of a variable cause, there occurs an inflammation of the uterine walls in the region of the solution of continuity. Under these circumstances the veins themselves become inflamed, and if the phlebitis, (which is moreover, as Cruveilhier has well shown, almost always obliterative) be for any reason of a suppurative nature, and if the formation of a clot above the inflamed point do not occur to prevent the penetration of the pus into the current of the circulation, there results that peculiar form of fever to which the name of purulent infection of lying in women has been given.

At other times it is the lymphatic vessels which are diseased. But in any case the alteration is localized in a special ground, to which we should always pay the greatest attention. I mean the lateral borders of the uterus. It

is, in fact, within the thickness of the internal border of the broad ligament that the alteration is situated, for it is there that the vessels, arteries, veins, and lymphatics, converge, which have kept up the placental circulation, a very active physiological circulation as gestation required. There is found the point of departure of phlegmons of the broad ligament whose origin has been in inflammation of the lymphatics or of the veins. It was under such conditions that this woman came into our wards. The placental wound was in process of cure, when 10 or 12 days after delivery in consequence of over exertion she presented herself to us with all the signs I have just described, and which enabled me to diagnose a phlegmon of the broad ligament. The most absolute rest, the application of cataplasms over the abdomen, and freedom of the bowels secured every day or every other day by means of a purgative, suffice in the majority of cases to enable these patients to get well, and the phlegmon is thus rather easily prevented from being transformed into an abscess, the grave consequences of which you well know. You will not therefore be astonished that I have with so much insistance opposed this woman's going out. I am, in fact, convinced that she goes out merely to return in a few days with an abscess of the broad ligament, the consequence of an uncured phlegmon.

What will be the course of this abscess?

When abscesses of the broad ligament are formed they are commonly announced by symptoms of considerable gravity: the woman is seized with repeated chills, fever is set up, the temperature rises, and sharp pains occur within the belly.

Later, when the suppuration has become established, it is not rare to observe the pus open into neighbouring organs, such as the bladder, rectum, and peritoneum. In the last case, the presence of pus in the peritoneal cavity gives rise to acute complications which rapidly carry the patient off. In certain cases, on the other hand, the disease assumes a slower course, but the termination of which, as would be expected, is not less fatal, for it is rare that a woman, struggling against the hectic fever which consumes her, does not in the end succumb to the most complete marasmus. At other times the abscess points in the inguinal region, and opens here spontaneously at the end of 10, 15 or 20 days. But the tendency of these purulent collections to invade the cellular tissue which surrounds them is so great that most frequently a similar process occurs simultaneously in connection with the vagina, so that, even after the inguinal abscess has been opened either spontaneously or by surgical intervention, it is not rare to observe that some days afterwards the vagina becomes perforated in turn and gives issue to a purulent liquid. Therefore the prognosis should always be exceedingly reserved.

You will understand, from what I have just said, how serious this woman's affection is, and how dangerous it is for her to leave the hospital in her present state. Her imprudence may be attended with serious consequences, whilst rest in the hospital would in all probability suffice to obtain a cure of her peri-uterine phlegmon.

The Vomiting of Pregnancy.—The *Presse Med. Belge* notices a method proposed by Dr. Labelski, a physician attached to the Warsaw hospitals, at the Brussels Academy of Medicine, for arresting the incoercible vomiting of pregnancy. As soon as this appears, or even the nausea which usually precedes it, a douche of pulverised ether should be directed by Richardson's spray-producer against the epigastric region and the corresponding part of the vertebral column. The douche should be prolonged for from three to five minutes, or even longer, and repeated every three hours. In obstinate cases it should be alternated with douches of chloroform.—*Dublin Medical Press.*

Diagnosis of Pregnancy.—Dr. Goodell, of Philadelphia, says, "You should adopt this general rule of diagnosis: when the neck of the uterus appears to you as hard as the end of your nose, pregnancy should not exist; if it appear to you as soft as your lips, the uterus probably contains a fœtus."

A case is reported in the *Maryland Medical Journal* in which labour was retarded by the presence of a ring pessary.

Materia Medica.

THYMOL AS A REMEDY IN SKIN-DISEASES.

BY H. RADCLIFFE CROCKER, M.D.,

Asistant Medical Officer to the Skin Department, University College Hospital, etc.

Thymol is obtained from the essential oil of thyme, which is found in several plants—*Thymus vulgaris*, *Thymus serpyllum*, *Mentha sylvestris*, and *Ptychotis ajowan*, the last a very common plant in India, which would probably be the main source if much demand arose for it. Oil of thyme consists of two bodies; one a liquid hydrocarbon, thymene, and the other oxidised, thymol ($C_{10}H_{14}O$). It is placed by chemists in the camphor group, and is homologous to phenol, forming thymolates and sulphothymolates with alkalies. As imported into this country, it is a white solid, crystallising in oblique rhombic prisms, though from weak solutions it may be obtained in the form of needles, with the odour of oil of thyme, and is obtained in the solid form by freezing the essential oil or by distillation; but when made by acting on the oil with caustic alkali, with which it combines, and separating it from the alkali by an acid, it occurs as a liquid which cannot be made to crystallise. In water it is only permanently soluble about one part in a thousand, but readily soluble in alcohol, ether, glacial acetic acid, vaseline, and fatty substances generally. Still better as solvents, both on account of the quantity taken up and because so dissolved it can be diluted to any required extent, are the caustic alkalies, thymolates being formed, I believe.

Five grains of thymol dissolved in an ounce of rectified spirit will not be precipitated on the addition of an equal bulk of water; but some will be thrown out when diluted to four ounces to be redissolved when the proportion of six ounces of water to one ounce of spirit is reached. In the proportion of two grains to the ounce of spirit, it is miscible with water in any proportion. A solution of seven grains of caustic potash in a drachm and a half of water will take up fifteen grains of thymol. A solution of ten grains of caustic soda in a drachm of water takes up thirty grains of thymol. Glycerine only increases the solubility in water very slightly. Further details may be found in Mr. Gerrard's paper in the *Pharmaceutical Journal*.

As an outcome of the above, I have used the following formulæ.

1. An ointment, consisting of one ounce of vaseline and from five to thirty grains of thymol; the thymol being dissolved in the vaseline.

2. A lotion, consisting of thymol, five grains; rectified spirit and glycerine, each one ounce; water, sufficient for eight ounces. The glycerine is added to correct the desiccating effect of the spirit alone.

3. A solution of five to eighty grains of thymolate of potash* in eight ounces of water.

The disease in which I first prescribed it and have had the greatest success, is psoriasis

In my early cases, I used the ointment of a strength of twenty-five grains to the ounce, to be rubbed into the seat of eruption after the removal of the scales, night and morning; but I soon found that it was a powerful stimulant, and that 5 per cent. was too strong for many cases. I found it better to begin with a weaker ointment, namely, ten grains to the ounce; and then, if the remedy were suitable, to continue as long as improvement was manifested, and if it became stationary, to increase the strength by five grains to the ounce until, in some cases, thirty grains to the ounce was reached. In the majority of cases, the weaker ointment was sufficient to cure the case; and another advantage is that it can be more continuously applied than the stronger forms, a method to be preferred, as a rule, to intermittent applications. Many cases treated with thymol showed rapid improvement, and some very chronic cases, which had resisted other treatment, including tarry applications, improved and were finally cured by it.

If the disease were limited or nearly so to its usual situations on the extensor surfaces of the forearms and legs, I usually ordered the ointment; but when the diseased surface was

* Since writing the above, Mr. Gerrard has found that the alkali merely dissolves the thymol, and that when the vaseline ointment is stronger than twenty grains to the ounce, the thymol should be first dissolved in alcohol, in the proportion of one minim to the grain.

of considerable extent, a lotion was prescribed to be applied with soft rag several times a day, lotions being generally more convenient in the daytime to people following their usual avocations. In some people it produces tingling and occasionally smarting when first applied, but this only lasts a few minutes. Like all stimulant remedies, it does not suit every case, and must not be applied, or at least very dilute, when, on removing the scales, the parts are much hotter to the touch than the surrounding skin and very red; in short, whenever the hyperæmia is considerable. This must be first subdued by soothing astringent measures externally, and appropriate internal medication, and then thymol applications will materially hasten the cure. In fact, it is most successful in that class of cases in which tar is usually prescribed, and while quite as efficacious and in some cases succeeding where tar fails, it is cleaner, colourless, and hence can be used on the face without producing the brown discolouration of oil of cade and other preparations of tar, while the odour is rather pleasant than otherwise.

In the later stages of eczema it is also extremely useful; some cases of very long standing, which had been submitted to other treatment of various kinds, rapidly yielded to thymol. It was necessary in eczema to use a weaker ointment of only three to five grains to the ounce; and I have not met with any case of eczema that required a stronger application than that, and unctuous are generally better than watery applications in this disease.

As might be anticipated, it is adapted to a smaller proportion of cases than psoriasis, and must be restricted to cases in the dry stage or where the amount of discharge is diminishing, *i.e.*, not until the activity of the inflammation has subsided; hence it happens that even in the same patient it would cure one part, and be too stimulating for another part where the inflammation was still active. If, however, due discrimination be employed, the duration of the disease may be much curtailed. Smarting when first put on is rather more frequent than in psoriasis. With similar precautions, it also rapidly completes the cure in so-called lichen agrius; but usually a preliminary soothing treatment is required for some time before thymol is prescribed.

Lewin and Bucholtz have shown that thymol is about eight times as powerful as carbolic acid as a destroyer of the lower forms of life, and hence its usefulness in vegetable parasitic diseases was suggested. Accordingly, I have treated cases of tinea versicolor, tinea tonsurans, and tinea circinata. In the last two I have not yet used it sufficiently to warrant an opinion as to its merits, but in tinea versicolor I have used an ointment of ten grains to the ounce and the thymolate of potash lotion of ten grains to eight ounces. The ointment was effectual, but slow in its action; but the lotion cured cases where a large surface was affected in a few days. I cannot, however, claim for it any great advantage over sulphurous acid and the hyposulphites. I may also mention, for what it is worth, that a case of lichen planus which has lasted five years, after a fortnight's treatment with thymolate of potash, shows more improvement than I have ever seen in so short a time; the itching is gone, and the eruption is less prominent.

I think we may conclude from the above facts that thymol is a valuable addition to the list of stimulant remedies for diseases of the skin, and probably also as a parasiticide for diseases of fungous origin; but, like all stimulants, it must not be used wherever there is much hyperæmia, as it will be more likely to aggravate than benefit such active cases; judiciously employed, however, it gives results which cannot fail to be gratifying to prescriber and patient, while its pleasant appearance and odour, as compared with preparations of tar, with the avoidance of the discolouration of the hair and skin produced by chrysophanic acid, are not the least of its claims to attention.—*British Med. Journal.*

An Easy Mode of Plugging the Posterior Nares.—Cut off the ends containing the eyelet holes of two soft catheters; then by means of a long needle, thread each with a double ligature. Pass one through each nostril well into the pharynx. Dangling loosely there, it is easily drawn through the mouth by passing the forefinger around it. Remove the catheters, attach the plugs and draw them into place.

NOTE ON SOME OF THE THERAPEUTIC VIRTUES OF EUCALYPTUS GLOBULUS.

BY BENJAMIN BELL, F.R.C.S.E.

Rather more than a year ago my attention was first drawn to this remedy by an interesting reference to it in Sir John Rose Cormack's *Clinical Studies.* In a postscript to a case of cauliflower excrescence of the uterus, he mentions that latterly he has used, as an injection, an infusion of the leaves of the *eucalyptus,* or a mixture of from one to four drachms of a tincture in eight ounces of tepid water. Besides being refreshing and comforting to patients so affected, these applications have, in his experience, a remarkable power of destroying the fœtid odour of morbid discharges, *without the substitution of another unpleasant smell.* He extends the remark, after much experience, to the offensive discharges attendant upon cases of ozœna, cancer of the tongue and throat, cancer of the uterus, gangrene, and other affections accompanied by fœtor. In the same postscript he mentions that in simple uterine catarrh he knows of no remedy equal in value to the *eucalyptus globulus.* In these cases he has met with the most satisfactory results, when it was simultaneously administered by the stomach and in the form of injection. He adds: "As Gubler has shown, the anti-catarrhal virtues of *eucalyptus* are most remarkable. With increasing experience of its power, I more and more use it in bronchial, vesical, and uterine catarrh, in gonorrhœa and in gleet." These representations of Sir John Rose Cormack, and the circumstance, which he also mentions, that a preparation of the essential oil in capsules is a favourite prescription with many leading physicians in Paris, led me to make trial of the remedy in a variety of cases during the past year. The only preparation which I have used has been the tincture prepared by several of our most eminent chemists in Edinburgh, and I have seldom prescribed more than a teaspoonful, mixed with a wine-glassful of water, twice a day. In several cases of bronchitis with profuse expectoration, I have witnessed remarkable benefits after a very brief use of the remedy, evinced by a rapid diminution of the discharge, and also by a corresponding improvement in the general condition of the patient. But my object in writing this note is to recommend the internal use of *eucalyptus* in a class of cases to which, as far as I know, it has not hitherto been considered applicable. . . . It occurred to me that owing to its valuable properties as a disinfectant, deodorant, and astringent, it might prove useful in certain forms of disease in the stomach and bowels. . . . A gentleman of seventy-five had suffered from formidable disease of the stomach for eight or ten years, and on several occasions, had seemed very near his end, with every symptom of malignant ulceration. Great quantities of blood had been vomited from time to time, and at short intervals, seldom exceeding a fortnight, the stomach after becoming painfully distended with a sour *barmy* fluid, was relieved by repeated vomiting, while life itself seemed possible only with extreme lightness of diet and most vigorous self-denial. . . . . He has taken the tincture of *eucalyptus* twice daily for many months, and during all that time has scarcely had even a threatening of those painful and exhausting attacks which had latterly occurred almost every week.

Another old gentleman, a retired medical man of eminence, who for some years has laboured under symptoms which indicate disease of the stomach and possibly the colon, is so sensible of benefit from the use of the medicine, that he can seldom abandon it for even a few days without being reminded of its importance and eagerly resuming it.

Another case in which ulceration, or some other organic disease of the stomach, seemed the only reasonable diagnosis, the patient made an unexpected recovery from extreme attenuation and weakness under similar treatment.

I have tried it repeatedly in a class of cases which are usually regarded as ulcers of the stomach threatening perforation, and with complete success. . . . . Of course, no one will think of using the medicine as *a specific* in any case where it may seem to be indicated. All the details as to diet and general regimen, which would be deemed necessary without it, must be carefully attended to. In conclusion, I may say, that it seemed to me of manifest use lately in a case of diphtheria commencing in the gullet and ascending to the fauces; and my belief is that it might be prescribed with advantage in some cases of typhoid fever.—*Edinburgh Medical Journal.*

Hospital Reports.

(Translated for the CANADIAN JOURNAL OF MEDICAL SCIENCE.)

HOPITAL NECKER.

OPERATION OF LITHOTOMY. REASONS FOR PREFERRING IT IN THIS CASE TO LITHOTRITY.

BY M. GUYON.

We are about to practise in a few minutes the operation of lithotomy upon a young man under our care, who is at present lying in Bed No. 27, Saint Vincent Ward. But, before doing the operation, I desire to make known to you the reasons which have decided me to choose this mode of treatment for this patient. At the present time, indeed, the operation of cutting is no longer done by surgeons except for certain grave reasons, and it may be said that, in the immense majority of cases, the treatment of stone consists in lithotrity, the efficacy of which you have many times been able to appreciate for yourselves in this service where not a day passes in which it is not practised.

We have to do with a young man 21 years of age, who entered the hospital on the 21st of December last. His history is almost entirely pathological, for since two or three years old he has always suffered more or less in micturition. When 7 years old he even passed some blood, but these emissions of blood were not at all abundant, and have never since reappeared.

From this time up till lately the patient suffered but little, and, according to his own statement, he was, on the whole, tolerably well: playing, running, and entering, without excessive difficulty, into all the exercises of his age. From time to time, however, he experienced in the bladder certain recurrences of the pain making itself felt at the end of micturition. Matters went on thus up to last year, when he began again to suffer, not only during and after micturition but more constantly. The very sharp pains which he experienced were characterized by being considerably aggravated by the slightest movements of the patient, so that not only could he not ride in a carriage or railway train but it became absolutely impossible for him to move about. Along with this his urine was purulent but not alkaline; lastly, and it was on account of this infirmity that he entered the hospital, this young man presented an incontinence of urine, with which, indeed, he had been affected since his infancy.

On his entrance we found him to be a rather large man, almost completely developed, but thin, pale and debilitated.

In view of his history we were naturally led to proceed immediately to a local examination, and, as is our invariable custom, commenced with an exploration of the rectum. We found the prostate slightly bosselated, but not at all increased in volume; on the part of the vesiculæ seminales nothing particular was presented, the epididymis itself appeared perfectly healthy, so that there was no reason for delaying over the idea of a generalized tuberculization as might at first have been supposed. We then explored the canal of the urethra. As usual this examination was at first made with a soft instrument, that is to say with an *explorateur à tête* with a soft and supple stem, and afterwards with a silver sound.

The former afforded us valuable information: chiefly, it showed us, as is moreover the rule whenever patients suffer from the bladder, that the membranous portion of the urethra was contractured. The passage of the instrument into the prostatic portion was also a little painful, but nevertheless it did not amount to much, and it was only at the moment of entry into the bladder that we gained information of prime importance, for scarcely had the bougie cleared the neck of the bladder when we felt a sensation of a peculiar, raspy grating which was nothing else than the contact of the instrument with the calculus. It should be known, indeed, that soft instruments are perfectly capable of detecting a stone in their path, and of transmitting the sensation of it to the surgeon who is exploring.

We then examined the bladder with a silver sound. The introduction of the instrument was necessarily painful, as is always the case whenever the patients have suffered long. But, although painful, it was done under the simplest conditions, without bleeding, and without consecutive reaction. By this means we soon found the stone, and seeking to ascertain its dimensions, we discovered that it measured 3 to 4

centimetres ($1\frac{1}{2}$-$1\frac{3}{5}$ inch) in one of its diameters. Moreover, the sensation of contact was rather soft, as if we had to do with a phosphatic calculus, but it is probable that in the middle of this deposit of phosphates there is a very hard nucleus.

The sound has, moreover, shown us that, although the stone can be easily felt, it is nevertheless necessary to look for it at a considerable depth. This latter fact induced us to renew the exploration per rectum while the catheter remained in the bladder. We then felt that the calculus was in fact situated considerably below the sound, and that consequently it was a pretty large one, unless indeed it had in some manner hollowed out a lodgment for itself in the *bas fond* of the bladder. I do not mean to say that it was encysted; for this phenomenon is so rare, however much it may be talked about, that we should only accept with reserve those observations in which the stone enveloped in a pouch of the mucous membrane only communicates with the bladder by a more or less narrow orifice.

This *ensemble* of signs furnished by the local examination led us to conclude that the stone was large. As for determining more precisely what its dimensions were it was a matter of utter impossibility. All that we could say was that it was about the size of a small hen's-egg or of a large nut.

But there was another question to be discussed. Was the stone of old or of recent formation? It was difficult to pronounce upon this point, for we had nothing to enlighten us except the statements of the patient, and they were not of a nature to enable us to solve the difficulty. Examination of the stone alone will determine this; and if, after its extraction, we find in its centre, as I expect we shall, one of those hard nuclei of Oxalate of Lime, which so often constitute the calculi met with in children, we shall be in possession of material proof that it dates back to the earliest days of his disease, and that, far from being the consequence, it has been the cause of the cystitis which we have observed. Whatever may be the fact, taking things as we actually find them, we have to do with a patient of extreme sensibility, who is suffering from a stone probably over the average size, and who above all is young. Under these circumstances, I have not hesitated to propose the cutting operation to him, and his age is the chief reason which has determined me in doing so. In fact a patient of 21 years is still within the period in which lithotomy may be done under satisfactory conditions almost as well as during childhood, for, at this epoch, the neck of the bladder is still sufficiently pliable to allow even a voluminous calculus to pass without determining any of those rents which render extraction of the stone so serious in persons of a more advanced age.

Then again this young man has considerable pus in his bladder, perhaps, too, he already has pyelitis; so that to do lithotrity with the necessity of going through a number of longer or shorter sittings, together with the extreme sensibility of the patient, we would run the risk of setting up a reaction which might become exceedingly grave, and later when we should be obliged to resort to this extremity (cutting), we should no longer be in a position to do lithotomy except under unfavourable conditions. At present, on the contrary, we are in a position to perform a relatively simple operation, and by this means we can assure to this boy greater chances of cure than by lithotrity. It is, therefore, on account of his age, the size of his stone, the special sensibility of his organs, and of the individual himself, and lastly on account of the state of his bladder and the probable alteration of his kidneys, that I have decided, in this case, to practise lithotomy. You may perhaps object that we would arrive at the same end by doing lithotrity under chloroform. To that I should reply that, in themselves, the sittings of lithotrity are a small matter, and that what is important is what takes place between the sittings. During the interval, in fact, the patient voids the fragments: but, we cannot keep giving chloroform to prevent the bladder contracting and expelling the *débris* it contains. This boy would therefore be exposed, between the sittings, to suffer the pains resulting from the propulsion of the fragments towards the neck of the bladder, and we should thus see renewed, after each sitting, a cause of danger which we shall certainly avoid by cutting. I shall not here enter into the details of the operation, for they are well known to you; but shall rest content with having pointed out to you the reasons which have determined me to practise lithotomy in this case.—*Gazette des Hôpitaux.*

Original Communications.

FOUR CASES OF PLEURAL EFFUSION —IN TWO OF WHICH, THE FLUID WAS REMOVED BY PARACENTESIS AND IN THE OTHER TWO BY THE FORMATION OF AN EXTERNAL ABSCESS, COMMUNICATING WITH THE PLEURAL CAVITY.

BY THOMAS B. PEACOCK, M.D., F.R.C.P.,

Honorary Consulting Physician to St. Thomas's Hospital.

Case 1.—Large serous effusion resulting from subacute pleurisy in a boy, aspiration, rapid and complete recovery.

Henry Spearing, aged ten, admitted into the Victoria Park Hospital, November 28th, 1877, having been ill for two weeks. He ascribed his illness to having gone out into the yard without his coat; the attack commenced with pain in the left side, extending across the epigastrium, which was increased on drawing a full breath, and these symptoms continued till he was admitted into the hospital. He had not been confined to bed, but had not been able to leave the house. When admitted, the left side was much expanded and its movements were abolished. There was marked dullness over the whole side and the respiratory sounds were inaudible everywhere except above and below the clavicle and at the lower cervical region. The heart was felt to beat over a large space between the right nipple and the lower portion of the sternum. The respiratory sounds on the right side were loud and compensatory. From his feeble infantile voice it was impossible to test the vocal fremitus.

It was decided at once to remove the fluid, and this was done the following morning by the aspirator by Mr. Bark, the Resident Medical Officer. The needle was inserted between the sixth and seventh ribs, in the line of the posterior border of the axilla, and forty-seven ounces of greenish-coloured serum were removed. Soon after the operation, the heart could be felt beating on the left side, rather below and to the left of the nipple. He passed a good night, and the following morning had a temperature of 99.5°. The left side of the chest was less expanded than before and the resonance on percussion was improved especially at the upper part posteriorly; there was more movement and the respiratory sounds were now distinctly audible, anteriorly and posteriorly, and in the axillary region. The heart could be felt to beat in the fifth interspace, about midway between the line of the nipple and the sternum.

On the 19th of December he had steadily improved, but there was still dulness on percussion in the lower anterior and posterior regions, and in the middle and lower lateral regions, but the respiratory sounds were distinctly audible in other parts of the side and feebly in the lower dorsal region. He was bright and cheerful and took his food well. On Jan. 2nd, 1878, the two sides of the chest were nearly equally expanded, though perhaps the left side was a little fuller behind; the movements were equally free on both sides. He could draw a full breath without having any pain in the side. The mark of the puncture was scarcely traceable. There was still some impairment of the resonance on percussion at the lower parts of the side all round, but the breath sounds could be heard everywhere, though somewhat feebly below. The heart occupied its natural position.

Case 2.—Empyema of left side in a young man; suspicion of lung disease; aspiration, followed by abscess in the seat of puncture; pleural cavity freely opened; recovery.

Richard Gammon, aged seventeen, a warehouse man, admitted into the Victoria Park Hospital, October 8th, 1877, having been ill for two months. He was first taken with pain at the lower part of the right side, after which he had pain on the left side, with cough and expectoration, but he had never spat any blood. He stated that his father died of pleurisy at thirty-three, and that he had lost several brothers in infancy, but his mother and a brother and sister were still living and healthy.

The left side of the chest was everywhere imperfectly resonant, and it was entirely dull in the lower dorsal region. The breath sounds were only feebly heard over the whole side, and were entirely inaudible in the lower dorsal and in the middle and lower lateral regions, where also the vocal fremitus could not be felt. There

was an œgophonic twang with the voice about the lower angle of the left scapula. The apex of the heart beat below and to the right of the right nipple. The right side of the chest was very flat under the clavicle, and the resonance on percussion was impaired, and the respiratory sounds very harsh. He was much prostrated and had the aspect of a person suffering from serious disease. It was obvious that there was some effusion in the left pleural cavity, and it was thought probable that this might be purulent; it was therefore decided to puncture the chest; this was done by Mr. Bark on the 10th, when twenty-four ounces of pus were removed by the aspirator.

On the 17th he had been relieved by the operation and the heart soon after returned to its normal position. There was still a marked dulness on percussion and absence of vocal fremitus in the left dorsal region and the œgophonic twang was still heard. There was somewhat abnormally clear resonance on percussion in the left mammary region when he lay upon his back; where also there was a metallic echo with the cough; and these signs changed their situation with changes in his position. He had a troublesome cough and expectoration, did not sleep well and perspired much at night; but he took his food well and was upon the whole better. On the 22nd he suffered from diarrhœa and this continued till the 29th, on that day a small abscess formed in the seat of puncture, and on being opened, a few drops of pus escaped; on the 3rd of November a fluctuating swelling had formed a little above the seat of the final abscess and on the 4th an unsuccessful attempt was made to pass a probe from the former opening into the abscess, an incision was therefore made from the seat of puncture into the pleural cavity and forty-four ounces of pus were removed. A drainage tube was then inserted and during the afternoon and evening fourteen ounces of pus flowed through it. After this discharge the fluctuating swelling disappeared. On the 10th, though there had been considerable discharge through the tube, at intervals it had entirely ceased, the tube was therefore removed and the opening immediately closed.

On the 21st his condition was very much improved. There was still dulness on percussion in the lower parts of the side, but the breath sounds were audible over nearly the whole side. On the 19th he had continued steadily to improve and had very little cough or expectoration and there had been no return of discharge from the opening which was indeed quite healed.

On January 2nd 1878, he had scarcely any remains of cough or expectoration, his breathing was better, he took his food well and was gaining strength and was altogether going on favourably. The cicatrix of the puncture and incision is situated in a line with the posterior border of the axilla, at the lower margin of the eighth rib. The chest is still very flat on both sides in the infra clavicular regions, the movement is imperfect, and the dullness is still marked in the lower dorsal and lateral regions; but the respiratory sounds are audible over the whole side, though feebly in the lower dorsal and especially in the lateral regions. The resonance on percussion is impaired at the upper part of the right side and the breathing is somewhat bronchial and there is some increase of the cough and vocal resonance. The heart beats in the left side between the nipple and lower end of the sternum.

Case 3.—Empyema in a child opening externally; recovery.

This and the following case occurred in two children, a brother and sister. The symptoms appeared very much at the same time and were very similar in their character. It seems therefore not improbable that the suppuration in the pleural cavity occurred in connection with some septic poisoning—such as scarlet-fever, though no history of such an illness was obtained.

Albert Edward Davies, aged seven, admitted into Victoria Ward, St. Thomas's Hospital, July 14th, 1875, labouring under an empyema of the left side of eight weeks' duration. It was reported that he had never had any of the diseases of childhood, and was indeed in good health till he began to suffer from pain in the left side, followed by feverishness, sickness and delirium, and he had got gradually worse till his admission into the hospital.

The left side of the chest was much expanded

and dull on percussion. The movement was abolished and the breath sounds everywhere very indistinctly audible, while on the right side the movement was very free and the respiratory sounds loud. There was a fluctuating tumour below and to the left of the left nipple. This was at once punctured and an ounce and a half of pus was evacuated. The puncture was made over the fifth inter-costal space below and in the line of the nipple.

On the third of August, he was reported to have steadily improved since the abscess had been opened. He was able to lie in different positions, though for the first fortnight he would only lie on the left side. There had been some discharge from the opening each day but it had gradually diminished. The side continued dull on percussion posteriorly, but the breath sounds were distinctly audible everywhere, except in the lower anterior, lateral and posterior regions where the dulness was still very marked.

On the sixth the discharge from the opening had entirely ceased; the side was somewhat contracted, the resonance on percussion was still impaired and the respiratory sounds were only feebly heard at the lower parts. When he lay upon his back there was an abnormally tympanitic sound in the upper mammary region, with feeble respiratory sound, no doubt indicating the presence of some air in the pleural cavity. He was discharged cured on the 17th.

Case 4.—Empyema opening externally in a child; disease of lung; death.

Marion Davies, aged five and a half, the sister of the subject of the last case; admitted into St. Thomas's Hospital, July 19th, 1875. She had been taken ill with feverishness and sickness two weeks before her admission, and three days after her brother was attacked. A few days after she was troubled with a very severe cough and her breath was very offensive and she brought up much expectoration, and on admission it was evident that there was considerable effusion in the right pleural cavity. Three days before admission a swelling made its appearance at the lower part of the right side. This was evidently an abscess and was at once opened and about three drachms of offensive pus were let out, and a probe being introduced, passed entirely across the pleural cavity and its point could be felt under the skin at the back. The day after, the child had a violent fit of coughing and brought up with a gulp some fetid purulent matter. The opening into the abscess was over the seventh inter-costal space, in the line of the anterior fold of the axilla. She did not improve after the operation. She had a troublesome cough but not generally any expectoration and her breathing was very much embarrassed. She had diarrhœa and in one of the stools passed some pus. She had marked hectic symptoms and died exhausted on the 4th of August.

On examination the right lung was found entirely collapsed. The middle and lower lobe adhered firmly to the parietes and diaphragm. In the upper lobe there were several foci of softened lung tissue like breaking down masses of broncho-pulmonary consolidation. Openings in the 6th and 7th inter-costal spaces led obliquely from the external abscess into the cavity of the pleura. There was also an abscess behind the sternum opposite the fifth costal cartilage, which however had no communication with the pleura. No communication could be found between the right pleural cavity and the bronchi, but the bronchial mucous membrane everywhere in the right lung was much inflamed. The left lung was free from disease, except that it was slightly emphysematous in front, and there were some recent adhesions between the pleural surfaces at the base. The heart and other organs were healthy, but there was recent peritonitis and turbid serum in the peritonal cavity.

It is, I think, rarely necessary to puncture the chest in cases of acute pleurisy and I have never had recourse to the operation in such cases, unless when the dyspnœa was so urgent as to imperil the patient. In the subacute cases also, if the effusion has not been of long duration, it is usually readily absorbed under appropriate treatment. In the first case which I have related, which was one of this kind, the effusion had not long existed, and the child was fairly healthy, it would therefore probably have soon been got rid of under treatment, but as the amount was apparently large, it was thought safer not to lose time and the fluid was there-

fore removed by the aspirator, and probably the cure was so effected more rapidly and completely than would otherwise have been the case.

In cases where there is reason to suppose that the effusion is purulent, and it generally is so when it occurs in connection with scarlet fever or erysipelas, and often where the lung is diseased, it is better at once to remove it. In the second case it was thought most probable that the effusion was purulent from the coexistence of pulmonary disease, the probably long duration of the effusion and the severe constitutional disturbance, and the pleura was therefore punctured without delay. The suspicion as to the nature of the effusion proved correct and considerable improvement in the condition of the patient immediately followed its removal. In both these cases the fluid was removed by aspiration, the instrument employed being one constructed on Potain's principle, in which the cavity is evacuated, by atmospheric pressure into a bottle from which the air has been exhausted by an air-pump. I have however more frequently seen the operation performed with the common trocar and canula. There is, however, great danger of the entrance of air into the pleural cavity when the common trocar is used, and this I should certainly prefer to avoid, though I have many times known it occur without any serious evil resulting. Whatever be, however, the means adopted for the removal of the fluid, it is, I think, desirable that the cavity should be emptied somewhat slowly, in order to allow the lung gradually to expand, and the heart, if displaced, to return gradually to its normal position.

The effect which follows the removal of the fluid where paracentesis has been practised varies with the time during which the effusion has existed in the pleural cavity and the nature of the effused fluid. If it has followed acute or subacute pleurisy of only short duration, there is an immediate improvement in the condition of the affected side. The movement returns to a more or less marked degree, and if the heart or liver has been displaced, they resume very much their normal positions. The entire dulness on percussion sinks to a lower level, and the vocal fremitus is again to be felt in the more resonant parts, and the respiratory sounds become audible over a larger portion of the chest, extending from above downwards and from within outwards, but the resonance on percussion still remains impaired and there is more marked dulness at the lower parts of the side; the side also is usually somewhat contracted; but these signs disappear as the portion of fluid remaining becomes absorbed and the lung becomes more completely expanded, though they do not generally disappear entirely till a considerable time has elapsed. It is rare that after the fluid is removed there is any marked friction to be heard, though when the cure is effected by absorption, there is usually very distinct friction to be heard, followed, as the cure progresses, by the modification which has been termed the stretching sound.

If, on the other hand, the effusion has been of long duration, the result of chronic disease and purulent in character, the amendment which follows the puncture of the chest is generally much less marked and rapid. There is usually more persistent dulness on percussion with defective respiration and imperfect movment and the decided dulness in the lower anterior, posterior and lateral regions only very slowly passes away. If the heart has been displaced it often does not return to the normal position and there is usually very decided contraction of the side and this may be of long duration, though even in cases of this kind, there is often great improvement in the state of the side after a considerable time has elapsed.

In the third and fourth cases, an external abscess formed which communicated internally with the pleural cavity and being opened, afforded an outlet for the purulent accumulation. In one of them a rapid and complete cure followed. In the other, which was however, a very complicated one, there being serious lung disease and probably a communication between the pleura and bronchi, with other disease, the child died. When the effusion is not confined to a limited portion of the pleura, but involves the general cavity, the pus rarely penetrates the parietes or finds an outlet through the lungs till a considerable time has elapsed and the lung having been long bound down, or compressed, is incapable of being again expanded, and the cure can only be

effected by the side becoming greatly contracted, so as to allow of the obliteration of the pleural cavity, and this, though it may occur in children and young persons, takes place very slowly, if it be accomplished at all, in grown-up persons, under any circumstances however a cure thus effected is a very imperfect one, the chest is very much deformed, the heart permanently displaced and though the sound lung may become very much expanded, it yet very imperfectly supplies the place of the other lung which is permanently disorganized, and the patient is therefore very short-breathed and incapable of any active exertion. Cases are however on record in which, after the discharge of matter from the pleura by an external abscess, patients have entirely recovered and have enjoyed good health and great vigour for many years. I have myself seen a case of this kind in which a man had served on board a man-of-war for many years after the occurrence, and I have known several cases in which matter has been expectorated from the pleural cavity soon after the commencement of an attack of pleurisy, and the patient has rapidly and completely recovered, in some of them, so completely, that the chest displayed scarcely any traces of having ever been the seat of serious disease.

Often, however, when the matter is evacuated in either of these ways, though the patients recover from the immediate symptoms, fistulous communications remain between the pleura and bronchi and the patients ultimately die exhausted by the persistent discharge, or if the heart be permanently displaced, or compressed by the contraction of the side, it usually becomes after a time diseased.

When from the accummulation of fluid in the left pleural cavity the heart is displaced, it usually lies behind the lower end of the sternum, between the sternum and the right nipple, or below and to the right of the nipple, but I have seen it displaced both vertically and transversely so as to occupy the angle between the right clavicle and the sternum; and in a case in which there was effusion in the right pleural cavity, connected with intrathoracic growth, the heart was very much displaced to the left and upwards so that it was seen to beat behind the anterior border of the left axilla.

It has, I believe, been generally supposed, that, when the heart is displaced, it is swung over, so as to occupy a position on the right side, the reverse of the normal position on the left, the apex being directed obliquely to the right. Mr. Bark, the Resident Medical Officer of the Victoria Park Hospital, whose experience of cases of this kind is unusually large, informs me that this is not always, or perhaps usually, the case. He drew my attention at a *post mortem* examination, at which I was recently present, to the fact, that, though the heart lay to the right of the lower part of the sternum, the organ was not at all rotated, but that the right ventricle occupied the front, and the apex was directed obliquely to the left, and this he has noticed in four other cases which he has examined.

It appears, therefore, that the heart is pushed over in mass to the right side, the trachea and bifurcation of the bronchi with the large vessels arising from the heart being all equally displaced, while the apex of the heart being retained by the attachment of the pericardium to the left side of the diaphragm still has its usual direction. This accords with what I have frequently noticed, that though the heart may be seen beating to the right of the sterum, its sounds are distinctly audible on the left side though below and further to the right than when it occupies its normal position. It also explains the infrequency with which in such cases the sounds are accompanied by murmurs.

In the second case, notwithstanding the existence of very marked dulness on percussion, the breath sounds were still audible over a large part of the side, and even low down. It was therefore supposed that there could not be much fluid in the pleural cavity, yet forty-four ounces were removed by the aspirator, and much more escaped afterwards. I have not unfrequently noticed that though the breath sounds were extensively audible, the cavity has yet proved to contain much fluid, and I have sometimes been deterred from operating by the extent to which respiration was heard. The persistence of the respiratory sounds with considerable effusion in the pleural cavity is I believe, when it occurs in adults, generally due to the existence of entire adhesions between the lung and parietes, or to the lung being somewhat consolidated and so resisting compression. In children the sounds are very loudly conveyed to the healthy side.

HOLIDAY NOTES.

New York, April 21st, 1878.

Your correspondent arrived in New York and through the kindness of Dr. J. B. Hunter, (who, by the way, is a Toronto boy,) received an invitation to a meeting of the New York Academy of Medicine, where he had the pleasure of hearing Dr. Thomas read a long paper on the intravenous injection of milk as proposed and practised by the late Dr. Hodder of our own city.

Dr. Thomas thinks that milk being an animal fluid closely resembling chyle, it may successfully be substituted for blood in cases requiring transfusion, if we are only careful to obtain fresh milk directly from a healthy cow for the operation, as it has been found that even the best milk undergoes such a rapid change after it leaves the cow's udder that an interval of only a few minutes will at times make all the difference between a successful issue and an absolute failure. Indeed, it was shown by experiments on healthy dogs that milk injected into their partially emptied veins a few hours after it had left the cow, always proved fatal, while perfectly fresh milk injected into the veins of the human female, had saved life. Dr. Jacobi said that milk rapidly becomes acid to chemical tests after leaving the cow even in a few minutes and that any acid fluid injected into the animal vascular system proves rapidly fatal, and this is probably one reason why cow's milk so often disagrees with young children who are deprived of their mother's breast. Cow's milk should be either neutral or slightly alkaline when first drawn and Dr. J. suggested the addition of a little alkali to milk for transfusion in order to ensure that condition. Then as to the quantity to be injected, it was shown that while sixteen ounces had been injected at once without proving fatal the symptoms were such as to suggest the propriety of limiting the amount to five, six, or at the most eight ounces for one injection, and Dr. Thomas declared that he believed it would be safer to repeat the injection half a dozen times if required than to inject the larger quantity at once, and he had tried both plans. The injection often produces severe headache and is almost invariably followed by chill, but these soon pass off, and then the exalted temperature falls several degrees, the pulse, which previous to the operation has been extremely rapid and weak, becomes slower and more full, and in some cases the patient falls into a quiet slumber which lasts several hours and from which she awakes feeling much refreshed. The preparations made by the Doctor for the injection are very simple, but upon the faithfulness with which they are carried out much of the success of the operation will depend. He has a healthy cow driven as close to the door as possible, the milk drawn into a small *warm* pitcher through fine gauze which in some cases he has carbolized, and immediately, (within two minutes) slowly injects through a warm glass funnel attached to the arm by a simple glass tube and cannula, the milk flowing in by gravitation. He says, and I think he is right, that by this method there is far less danger of forcing air into the veins than by any of the arrangements hitherto proposed, however complex or simple. He believes that the intravenous injection of milk will be found far safer than blood, more practicable, and equally efficacious, and being so much easier of accomplishment may be resorted to very much oftener. He thinks it will yet become one of our most valuable therapeutic measures in cases of extreme prostration from disease or accident, and well worthy the regard of the profession. It was resorted to by him in one case where several days after ovariotomy, the woman began to sink from sheer exhaustion, as she could retain nothing given by either the stomach or rectum. Six and a half ounces of milk were introduced through the veins of the arm, and after the headache and chill (to which I have alluded) had subsided, she fell into a quiet slumber which lasted five or six hours, and then awoke much refreshed, and recovered rapidly. She was apparently *in articulo mortis* when the injection was made.

In a second case of ovariotomy, internal hæmorrhage continuing and peritonitis supervening several days after the operation, the woman became so prostrate that death seemed imminent, he injected five and a half ounces of milk, when the patient rallied for a couple of days, the vital powers then failed

again, he injected sixteen ounces which produced very severe headache but was followed by reaction and improvement for another day or two, and in this way the injections were repeated five or six times in smaller quantities, each time the patient improving for a while, till finally they failed, the vital powers gave way and death ensued. During the course of the case about two pints of blood were removed from the abdominal cavity, and at the autopsy a pint was still found there and a large portion of the peritoneum and colon were found in a state of gangrene.

This case was, before the operation, considered a very bad one for success, and although it terminated fatally, as feared from the beginning, yet it demonstrated the power of the milk injections to *prolong* life and is therefore none the less valuable.

A CASE OF GRANULAR KIDNEY.

BY WILLIAM OLDRIGHT, M.A., M.D.

Sir,—Believing that cases of granular kidneys in young persons are rare I send you the following notes:--

On the 19th February, Mr. —— asked me to call and see his wife, aged thirty. He stated that having gone a couple of weeks "over her time" they had thought there was a "little obstruction" and had first given some domestic homœopathic treatment, and then called in homœopathic advisers.

On calling I was at once struck with the expression of countenance: I had attended the patient in her last confinement two years ago, and had met her frequently since. Her countenance naturally intelligent and expressive, was now quite altered in that respect. The face was puffy, the right parotid region swollen. After a rigid sifting of her history I found that she had been suffering at times since the middle of December from oft-recurring headache, cloudiness of vision, and some loss of memory. Passive hæmorrhage from the bowels had been going on for some days. There had also been purging, which the husband attributed to the first homœopathic medication, and which had become checked after the advent of the second attendant, no passage of fæces having taken place for a day or two. Whether these results were *post* or *propter* I do not know. There being a little abatement of the hæmorrhage the friends were enabled to procure some urine free from any contamination, and this proved decidedly albuminous.

I at once placed the patient on stimulant and tonic treatment; but she sank and died in forty-eight hours from the time I first saw her. A sero-sanguineous fluid oozed from the mouth, and patches of dark lymph could be scraped from the tongue. The discharge from the bowels was almost continuous and became extremely offensive, having a smell of decomposition. Moist râle and percussion dulness occurred in part of upper anterior portion of right lung. The vacancy of countenance and manner, and the cloudiness of vision, increased and stupor supervened, from which, however, even on my last visit, seven hours before death, she could be aroused sufficiently to recognize and name a watch and a tumbler which I held before her face; and to help herself over a little in her bed.

Post mortem.—In company with Dr. I. H. Cameron, I examined the heart and lungs and abdominal viscera. A part of the upper anterior portion of right lung was congested. The left kidney was certainly not more than half the normal size,—perhaps not more than one-third: its capsule coat was unusually adherent, and after a portion was with difficulty peeled off, a distinctly granular appearance was presented. The right kidney was about, or nearly, the normal size, but the pelvis was very much dilated at the expense of the cortical portion. The dilated pelvis was divided into three fossæ by two trabecular bands, running across it and formed of reduplications of its membrane.

Indigo Renal Calculus.—Dr. W. M. Ord, of London, at a late meeting of the Pathological Society of London, exhibited a calculus, half the size of a walnut, which analysis showed to be largely composed of this substance. The indigo found in the human system is not identical with the indigo plant, according to Dr. Thudichum.

A CASE OF MOVABLE KIDNEY.

BY WM. BETTRIDGE, M.A., M.B., STRATHROY.

I first saw Mrs. T. on March 12th, 1878, in consultation. She is 22 years of age, and has two children aged three years and sixteen months respectively. She states that with the exception of great pain in her back and loss of motion in her lower extremities, from which she suffered six years ago, and which lasted a year, and from which she quite recovered, she has always been healthy. About one year ago she noticed a tumour about the size of a hen's egg, below her ribs on the right side. This came lower down, and got larger she says, until by degrees it got almost to her groin. She had some nausea if she manipulated the tumour much. Present condition: She is pale and emaciated, feels very weak, has no appetite or rather fears to eat on account of the nausea that follows. Menses regular but profuse. Urine normal. Bowels irregular. On examining the abdomen I found on the right side a tumour about 3½ inches along, and 2½ broad, which could bo freely moved over a space of four inches or more. It could be pushed back under the ribs up into the loins, and also downward and across to the umbilicus. It descended when she took a long breath, was smooth and hard to the feel, and was not painful on pressure, but pressure caused a feeling of sickness and a sensation of weight. There was a depression in the right lumbar region, which was slightly tympanitic on percussion. There was dulness over the tumour. When she lay down the tumour fell back and could be pushed into place, and the resonance before elicited in the lumbar region was found to be absent, and the depression had disappeared. Mrs. T.'s medical attendants, Drs. Thompson and Hoare, concur in my diagnosis, that it is a case of movable kidney.

The conductive properties of water for the electric current vary rapidly according to its degree of purity, the resistance decreasing with the purity of the water. It is possible, it is said, in this manner to detect, with great ease the presence of small quantities of organic matter in the water.

Translations.

From *La France Médicale.*

TREATMENT OF MEGRIM (HEMICRANIA.)

BY DR. E. ORY.

The diversity of the causes which produce the various symptoms referred to megrim, at once explains the multiplicity of the remedies and the frequency of the insuccess daily met with in the treatment of megrim. It is for the physician to recognise in each case the point of departure of these nervous symptoms. The following are some formulæ which are frequently employed. Debout recommends the following pills:

Sulphate of Quinine .....45 grains.
Powder of Digitalis.....22½ grains.
Syrup .....a sufficiency.

Divide into 30 pills, of which one should be taken at bedtime every night for at least three months. Cazenave (of Bordeaux) suggests a pomade composed of

Pure Chloroform .....ʒiij.
Cyanide of Potash .....ʒijss.
Fresh Lard .....ℨij.
Wax q.s. to make a pomade.

Fomentations may also be prescribed with cloths dipped in

Cyanide of Potash .....ʒi.
Distilled Water .....ℨvj.

For nervous headaches, Barrailler orders to be taken in 3 doses with an interval of half an hour the following potion:

Distilled Peppermint Water .....ℨij.
Muriate of Ammonia .....gr.xlv.
Syrup of Orange Peel.....ʒvj.

You may also prescribe:

Extract of Stramonium.
Extract of Opium, each .....7½ grains.
Oxide of zinc.....ʒij.

To be made into 40 pills of which 1 to 8 should be taken per day in increasing doses.

The bromide of potash has sometimes given good results. According to Lokridge:

℞ Bromide of Potash.....900 grains.
Tincture of Aconite Root ....75 drops.
Distilled Water .....ℨij.
Simple Syrup .....ℨij.

A dessertspoonful in a little pure water; to be repeated in two hours if no relief be ob-

tained (Journal de Lucas Championniere) Chastelleix gives ʒvijss-ʒiij. of syrup of guarana.

℞ Alcoholic Extract of Guarana . . 15 grains.
Simple Syrup . . . . . ʒiij.

Guarana pastilles have been made. Van Ermengen has recommended inhalations of nitrite of amyl. Four to ten drops to be inhaled from a little tampon of cotton wool. This remedy requires to be watched.

Beaumetz has studied the effects of gelseminum.

Tincture of Gelseminum . . . . . ʒxij.
Simple Syrup . . . . . ʒxxx.

A tablespoonful three or four times a day; each tablespoonful corresponds to five centigrammes of powdered gelseminum root.

You may also give five to twenty centigrammes in pills or powders.

Injections of morphia are often prescribed, especially in megrim of abdominal origin (Bourdon, Luton.)

Lastly, granules of the arseniate of caffeine of one milligramme, in the dose of four or five at the beginning of the attack, pearls of essence of turpentine, one to six, have also, it appears, produced cures.

Bouchut gives chloral hydrate fifteen to thirty grains in capsules or in syrup of gooseberries, and makes applications of tincture of iodine upon the scalp and temple, which latter may be replaced by frictions with Ward's essence.

From *La France Médicale.*

A Little Known Sign of Cancer of Stomach.

Dr. Henri Huchard in a communication to the Clinical Society of Paris upon certain diseases of the stomach narrates the following circumstances: "This man was cancerous; the loss of strength, the emaciation, tho slightly cachetic tint, and the paleness of the integument justify this supposition. But what was the seat of the cancer? Doubtless in the stomach, since this patient had had some digestive symptoms, and he had also experienced pain, slight, it is true, but still persistent, in the pit of the stomach. What still further confirms this diagnosis is the presence of a sign to which Professor Peter, who assisted me in the examination, first directed my attention, and the correctness of which I have several times since been able to verify: when superficial percussion, *percussion en dèdolant*, is made over the stomachal region somewhat distended by gas, there is found at certain points, especially in the region of the greater curvature, a certain obscurity of the note alternating with zones of sonority. But this sign is absolutely wanting on deep percussion such as is ordinarily employed. Professor Peter, with his great medical skill, then diagnosed a cancer of the stomach situated at the posterior surface of the greater curvature, with some cancerous nodules probably disseminated through the epiploon below the splenic region and also in the hypogastric region. At this last point also superficial percussion gave the same results.

We insist upon this mode of percussion, which in obscure cases may prove of great utility in determining a doubtful diagnosis; and lately also in a patient affected with latent cancer of the intestine we were able by means of this sign to fix the exact seat of the disease.

From *Gazette des Hôpitaux.*

Ice in the Rectum to Combat Chloroform Narcosis.—According to Dr. Baillée there is no more active remedy in the narcosis caused by chloroform than the introduction of a piece of ice into the rectum. A moderate pressure suffices to overcome the resistance of the sphincter. The ice melts in the intestine and immediately a deep respiration is produced, the precursor of natural respiration and of the re-establishment of the cardiac functions. Mr. Baillée recommends the same means in cases of apparent death of the new-born.—*Revue Thér. Méd. Chir. et Arch. Méd. Bélges.*

For Sore Nipples.

℞ Borax	ʒii.	
Chalk	ʒi.	
Spirits of Wine	ʒii.	
Water	ʒii.	M.

Formula for Oil of Sandal Wood.

℞ Oil of Sandal	1 ounce.	
Mucilage of Acacia	1 ounce.	
Simple Syrup	2 ounces.	
Essence of Gaultheria	2 drachms.	M.

Dose—A teaspoonful three times a day.

THE CANADIAN
Journal of Medical Science,
A Monthly Journal of British and Foreign Medical Science, Criticism, and News.

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending their addresses to the corresponding editor.*

TORONTO, MAY, 1878.

QUIGILA (BRAZIL), GAFEIRA (PORTUGAL), LEPRA ANÆSTHETICA, *VEL DACTYLIANA* OF EUROPEAN AUTHORS.

Under the above heading we have found, in the October issue of the fortnightly *Medico Chirurgical Review* of Buenos Ayres, published under the able direction of Dr. Emillio Coni, a series of nine very interesting and instructive reports of cases of the above remarkable and destructive malady. Whether the disease here so graphically illustrated by our able cotemporary, is of generic affinity to the affection know as the leprosy of the Greeks, and that of various tropical regions, or stands in even closer relation with that Norwegian scourge which modern tourists, as well as native physicians, have depicted with thrilling fidelity, we are unqualified to suggest. We are gratified to learn, from a notification in the December number of Dr. Coni's *Review*, that he was then on the point of setting out on a tour of observation through the provinces in which the disease most largely prevailed, with the view of acquiring a fuller knowledge of its etiology and endemic prevalence, and we look forward with fond anticipation to the published results of his laudable exploration. We regret that our disposable space precludes the reproduction of the whole of the cases presented by Dr. Coni, for they are all deeply interesting, and have all been detailed with judicious exactitude. We have made a selection of the fifth case, as fairly illustrative of the more salient features of the disease in question. The following is a translation from the Spanish original :—

"Cipriana Vivas, an Argentine, female, aged 54, always engaged in domestic labours, of normal constitution, and highly lymphatic temperament, was examined by us at her residence, No. 585 Chili Street, 8th July, 1877."

Her progenitors and collaterals had been persons of good health, none having suffered from any nervous or skin affection. The patient had undergone small-pox, measles, scarlatina, cholera, yellow fever, and an hysteric attack. She was a native of Buenos Ayres, and had always resided there. In September, 1838, she gave birth to her first son, having up to this time enjoyed good health, saving the eruptive fevers above mentioned. Fifteen days after her confinement she was taken with a strong disgust, to which she ascribed the cause of her malady, which commenced in a formication, followed by insensibility, in the hands and feet, to such an extent as to render the former unfit for the discharge of her accustomed work. At the same time there was presented a tumefaction of the face, coincident with muscular prostration, which obliged her to keep her bed. An apothecary was called in; he prescribed mustard baths to the feet, rice, and orange leaves, and the application of sinapisms to the legs and feet. The rubefacient action of the mustard gave no uneasiness, and in consequence her mother continued the application throughout the night, the result of which was intense vesication. To this irrational medication the patient imputed her loss of power over the feet. A physician being called in, he prescribed two bleedings and some tisans and baths. She presently was restored to her former condition, but she found that the formication and insensibility persisted. Some time after there supervened intense pain in the lumbar region and the vertrebal column, with complete paraplegia. The physician ordered bleeding on three succeeding days, warm baths three times daily, spare diet, suspension of lactation of the child she was suckling. The first bleeding restored the movements of one leg, and the second those of the other. The attack kept her in bed fifteen days; on its subsidence she was able to perceive that the tactile sensibility had much improved, and her hands were not so torpid as before. Some time afterwards there began successively, at

considerable intervals, to appear on the fingers, some blisters, which she attributed to burns. These blisters were replaced by atonic ulcers, with copious fetid suppuration, terminating in slow cicatrization. The greater portion of the nails were enlarged and deformed, and all the phalanges were gradually eliminated. On asking the patient respecting the order of progression, she replied that she did not remember when the bones of the phalanges began to be lost, but merely that the third went first, and the second and first in succession; there had not been a loss of any in marked entirety; all the bones, to use her own words, "had rotted, or had been eaten away."

The actual condition is thus: The hands have for twenty years past been as we now find them. The period during which the destruction of the bones has been proceeding has not, as she says, been longer than four or five years.

The left hand. In this there remains only the first phalanx of the thumb, and the places of implantation of the other fingers are occupied by short stumps of greater or less thickness. In these stumps are observed callous cicatrices, the vestiges of old ulcers, which have destroyed the soft parts and eliminated the phalanges. The skin of the palm is very callous, and that of the dorsum soft and smooth to the touch, having a parchment appearance, which makes one suspect that the skin has undergone a profound modification, and, as we think, a species of fibrous transformation.

The right hand. This hand has not a single finger remaining. It now shows merely the small stumps formed by the skin and the soft tissues. It presents, in like manner as the left hand, callous cicatrices at the points of implantation of the fingers. On the dorsal, and the inferior part of the forearm, there is seen a superficial ulceration, produced by a burn, rose-coloured on the base, with callous, indolent edges. The skin of the palm and back of this hand has the same characters as that of the left hand. The tactile sensibility, though greatly impaired, still persists in both hands; and the left which has yet a phalanx of the thumb, is the chief aid to the unfortunate creature in her domestic occupations. Both the thermal and the dolorous sensibilities have totally disappeared.

The right foot. The great toe has lost its second phalanx, and shows a deformed and thickened nail. Its form is changed, and on its inferior surface the skin has been replaced by a callous texture. The second toe has lost its second and third phalanges; the soft textures which cover them form a small stump, strangulated at its base, and separated from the first phalanx by a deep fissure. There is no nail. The third toe exists not. The fourth has remaining only the soft textures, constituting a little stump. The fifth is contracted backwards, but has all its phalanges.

The dorsal surfaces of both feet are slightly œdematous, and they have the same characters as that of the hands. The movements of flexion and extension are but little marked. The tactile sensibility, though diminished, persists. On the plantar, and the external and internal regions, two small ulcers, with callous borders, and giving out a little pus, are seen.

The left foot. Our space does not allow of the continuation of the details given by the writer of the article in the *Revista;* but our readers will be satisfied with the illustrative details submitted; as we may state that the condition of the left foot differed not essentially from that of the right. We should be very glad to be able to transfer to our columns the whole of Dr. Coni's valuable observations; but as the important subject treated of is now under the consideration of the medical societies of Paris, it must very soon find its way into the medical literature of Europe.

Toronto Medical Society.—A meeting of between forty and fifty members of the profession, resident in the city, took place in the Canadian Institute on the evening of the 18th ultimo, with the view of organizing a Toronto Medical Society. Dr. Workman was called to the chair, and Dr. J. E. Graham was elected secretary. A committee of seven was appointed to draft a constitution and by-laws and report in a fortnight. Pursuant to directions, the committee met at Dr. Graham's on the 25th, and drew up their report, which will be presented at the first meeting, to be held at the Canadian Institute on the 2nd inst.

JOURNALISTIC.—To be published quarterly, "Brain," a journal of Neurology, edited by Drs. Bucknill, Crichton-Browne, Ferrier, and Hughlings-Jackson. Macmillan & Co., 22 Bond Street, New York, American Publishers. The Original Articles will consist mainly of Clinical and Pathological Records, and Anatomical and Physiological Researches, Human and Comparative, on the Nervous System. Signed Critical Digests and Reviews of Clinical, Experimental, and other Researches in this department of science, both at home and abroad, will also be furnished by an able staff of contributors. Space will also be devoted to Foreign Corespondence on matters relating to Neurological Science in its theoretical and practical aspects. It will be the object of "Brain" to keep its readers well abreast of modern progress in Neurology, and to advance the knowledge of a class of diseases respecting which it is universally admitted that much has yet to be learnt.

We have received the following communication from Perry Davis, Son and Lawrence, of Montreal, agents for Wyeth's Dialysed Iron, whose advertisement appears elswhere. "We notice in the April number, the article headed 'The Hypodermic Injection of Dialysed Iron in Chlorosis' by Dr. Da Costa. The Dialysed Iron used by the Doctor was 'Wyeth's'; if he had used any of the several Canadian makes, the result would have been very different, as but few of them have any of the peculiarities of 'Dialysed Iron' and not one of them (*we have had them all tested*), could be used in the manner described by Dr. Da Costa without injury to the patient, and with the result obtained by the Doctor in this case."

We are glad to be able to insert in this issue an interesting original paper from one so well and favourably known to many Canadians as Dr. T. B. Peacock, Senior Consulting Physician to St. Thomas's Hospital. Our readers will be amply repaid by a perusal of the article.

APPOINTMENT.—1. T. Moore, of the town of Tilsonburg, M.D., to be an Associate Coroner in and for the County of Oxford.

Book Notices.

McGill University, Montreal, Faculty of Medicine Announcement, Summer Session, 1878.

Annual Announcement of the Medical College of the Pacific, Session of 1878. San Francisco: A. L. Bancroft & Co., Printers.

The Annual Medical Directory of Regular Physicians for the State of Illinois, for the year 1878. F. A. EMMONS, M.D., Editor.

Proceedings of the Louisiana State Medical Association, New Orleans. Medical and Surgical Print, 1878.

Observations in Practice, Surgery, Gynecology, and especially Obstetrics. By GEORGE B. WALKER, Professor of Obstetrics in the Medical College of Evansville, Chicago, Medical Press Association, 1878.

Vest Pocket Anatomist (founded upon Grey). By C. HENRI LEONARD, A.M., M.D., 2nd enlarged edition. Detroit, 1878. This is a small pamphlet of fifty pages, containing a synopsis of anatomical facts useful for a student on the eve of an examination.

"*What am I?*" A valedictory address to the Graduates, delivered at the close of the Forty-first Session of the Medical Department of the University of Louisville, Feb. 28th, 1878. By J. M. BODINE, M.D., Professor of Anatomy and Operative Surgery of Eye, and Dean of the Faculty.

Atlas of Skin Diseases. By LOUIS A. DUHRING, M.D., Professor of Skin Diseases in the University of Pennsylvania. Philadelphia: J. B. Lippincott & Co., 1878.

We have received Part III. of this valuable work, containing illustrations of Eczema (squamosum), Syphiloderma (erythematosum), Purpura (simplex), Syphiloderma (papulosum et pustulosum). It is evident from the successive excellence of each part that the words of commendation so justly merited by Parts I. and II. will be equally applicable to all. When

completed they will form a work that will be of invaluable assistance to the practitioner for reference, and to the teacher when clinical cases are wanting to illustrate his lectures. There are to be eight or ten parts issued quarterly at $2.50 each part.

Montreal General Hospital Pathological Report for the Year ending May 1st, 1877. By WILLIAM OSLER, M.D., of McGill University. Vol. I. Montreal: Dawson Brothers, Publishers, 1878.

We gladly welcome this first pathological report from a Canadian hospital. It contains interesting records of cases from the post-mortem book of the General Hospital, which throughout bear witness to the well-known industry of the talented author. Dr. Osler's reputation as a pathologist and physiologist, already so high both at home and abroad, gains additional lustre from every production of his active brain and pen. We regret that space does not allow us to give our readers some extracts from this admirable volume. The cases, (some of the more important of which have already appeared more in detail in the Canada Medical and Surgical Journal) are carefully reported, grouped on an anatomical basis, the system of inspection of Virchow at the Charité Berlin having been followed. The book is dedicated to Dr. James Bovell of Toronto.

A Guide to Therapeutics and Materia Medica. By ROBT. FARQUHARSON, M.D., Edin., F.R.C.P., London, Lecturer on Materia Medica at St. Mary's Hospital, Medical School, &c., enlarged and adapted to the U: S. Pharmacopœia by FRANK WOODBURY, M.D. Philadelphia: Henry C. Lea; Toronto: Hart & Rawlinson.

This is a convenient manual for reference, containing in moderate compass the physiological and therapeutical effects of all remedies in use. It is arranged alphabetically and in parallel columns, the physiological action being given on one side and the therapeutical on the other. Botanical and pharmaceutical details are omitted. An introductory chapter on rules for prescribing, and one on the classes of remedies, with an index of diseases and their various and appropriate remedies, complete a volume that will be a useful reference book for the student and busy practitioner who have not the time to peruse the larger systematic treatises of Stillè or Wood. The author is well known as a careful scientific and practical investigator of the actions of medicines in health and disease, and he gives us concisely in this book the result of his labours, together with that of other workers in the same field. Dr. Woodbury has adapted it to the U. S. pharmacopœia, and has made such additions of new remedies, &c., as the advance of this branch of medical science, and the requirements of the American medical student seemed to demand. Dr. Farquharson favours the writing of prescriptions in English.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.—The third meeting of the fifteenth session was held on the 16th ult.; Dr. Gillespie, President, in the chair.—Professor Grainger Stewart exhibited four patients illustrating in a marked degree the varying amount of Tendon Irritability in different forms of Paralysis. Case 1, a little boy suffering from hemiplegia. Tapping ligamentum patellæ of the healthy joint with a percussion-hammer, the foot was jerked forward; on the affected side, movements more violent. The normal irritability was wholly lost in locomotor ataxy, and this was one of the earliest and most reliable signs of the disease. Case 2, locomotor ataxy; absolutely no response to tapping the patellar tendon. Ordinary reflex movements not impaired. Case 3, with some ataxic features, but showing excessive tendon-irritability. Case 4, well-marked ataxy; no irritability of tendon.

MODE OF TREATMENT OF VARICES.—Dr. Gabrielle, of the Italian Navy, recommends the following means: Apply over the varicose cord, throughout its whole extent, a very thin strip of lead, the thickness of which should not exceed a millimetre ($\frac{1}{2}$ a line) and keep it in place by means of a roller bandage; keep it on night and day for ten days, unless the patient cannot tolerate it during the day, in which case apply it only during the night and when he is not obliged to walk. The cure will often be complete after ten days' application—*Courrier Médical.*

Miscellaneous.

Ontario Medical Council Examinations.—There are 305 students up for examination in Toronto in the various years. Of these 89 are finals.

Toronto University.—The examinations in the Faculty of Medicine began on April 17th. There are 140 names on the list for the various years.

Dr. P. Heron Watson as one of the suite of Earl of Rosslyn, on his mission to the marriage of the King of Spain, has been made a Companion of the order of Charles the Third.

Mr. John Chiene has been elected surgeon to the Edinburgh Royal Infirmary in succession to Dr. Patrick Heron Watson, whose fifteen years' term of office has expired.

Personal.—Dr. W. Metcalfe, Assistant Superintendent at the London Asylum, has gone to Rockwood Asylum, Kingston, to act in Dr. Dickson's place during the latter's absence for six months.

Treatment of Cholera.—T. D. Atkins, M.R.C.S.E., of Exeter, England, states that he found oil of cinnamon a specific for cholera in an outbreak on board an Indian emigrant ship, every case recovering.

Toronto General Hospital.—Work has been commenced on the new Eye and Ear Infirmary in connection with the General Hospital. There are about one hundred and seventy-six patients in the hospital at present.

Treatment of Acne Rosacea.—Dr. Balmanno Squire has found the ointment of chrysophanic acid applied all over the face and rubbed well in, twice daily, to be very successful in a case of acne rosacea.

Intermittent Neuralgia.—Dr. Oster in *Der Praktische Arzt* claims to have cured a large number of cases of neuralgia of the fifth nerve of malarial origin, by salicylic acid. (It is cheaper than quinine.)

Tincture Stoppers.—The unpleasant cementing of stoppers can be entirely prevented by rubbing the stoppers with a piece of paraffine and giving them a turn in the neck of the bottle, so as to distribute a thin coating of paraffine all over. Renew two or three times a year.

The annual meeting of Convocation for the conferring of degrees in the Faculty of Medicine, University of Bishop's College, was held in the Synod Hall, on April 11th. The number of students in attendance during the session was 43. Of these were, from the Province of Quebec, 32; Ontario 4; United States 5; Jamaica, West Indies, 1; Bermuda 1; total, 43.

Cor Bovinum.—The *Gazette des Hopitaux* says Prof. Tourdes (of Nancy) removed, at the medico-legal autopsy of a man who had died suddenly, a heart which surpasses in volume and in weight all recorded cases of cor bovinum. In fact, except one in which the heart exceeded 1,000 grammes (15,434 grains), the cases vary between 500 and 680 grammes. This one reached 1,480 grammes, weighed the day of the necropsy. It still preserves 1,250 grammes of weight after being prepared and placed in alcohol for several days. America still beats this: the heart which Prof. Alonzo Clark presented to the College of Physicians and Surgeons of New York weighing 57 oz.

Dr. N. H. Beemer, of Wyoming, received an appointment to the London Asylum about the middle of March. We observed in the *Western Globe* an account of a very pleasing incident which occurred just before his departure for his new sphere of labour, viz: a presentation of a Silver Set, accompanied by a most gratifying expression of esteem and affection on the part of a large number of friends and patients. The boys of his Sunday-school class, also, made him the recipient of a silver inkstand and an address. We are exceedingly pleased to notice these evidences of a public appreciation of that true merit which we personally know Dr. Beemer to possess. We most heartily congratulate the asylum on his appointment to its staff, and cordially re-echo all the good wishes for his welfare lately so well expressed by his friends in Wyoming.

Examinations at Queen's College, Kingston. — Finals — Messrs. Bennett, Brennan, Craig, Clinton, Evans, Kennedy, Kidd, Lewis, Lynch, and McArthur. Primary—T. and W. A. Cleaver, Donovan, Henderson, Horton, Hossie, Judson, Kilborne, Leonard, Lafferty, McCammon, Newlands, and Ward. Excellence of papers assigned positions to the following :— Hospital Surgeons—Messrs. Henderson and Leonard. Demonstrators—Messrs. Ward and Horton.

Trinity Medical School.—The following gentlemen passed their examinations at Trinity Medical School at the close of the late session 1877-8 :—*For the Diploma and Fellowship*: Trinity Gold Medallist, W. A. Dafoe ; Trinity Silver Medallist, J. D. Bonnar; Medical Faculty Gold Medallist, Charles Sheard; Medical Faculty Silver Medallist, Henry D. Wilson. *Certificates of Honor in the Final Branches*—J. M. Groves, J. P. Rankin, U. M. Stanley, P. Dunfield. Passed—Messrs. H. A. DeLom, T. H. Ashby, A. M. Baines. *In the Primary Branches*—Second year's Scholarship, Mr. A. McDiarmid. Certificates of Honor,—Messrs. Chappell, Welford Duck, Thurreson and Parke. *First Year's Examination.*—1st. First year's Scholarship, Mr. Hatton; 2nd. First year's Scholarship, Mr. Beatty. Passed—Mr. Shore.

University of McGill College.—*Annual Convocation and Conferring of Degrees.*—The following gentlemen received the degrees of M.D. and C.M. :—Messrs. Beckstead, Grantly, Ont. ; Robert Bell, Montreal ; John D. Cameron, Glengarry, Ont. ; Alexander Chisholm, Lochiel, Ont. ; Robert Collison, Matilda, Ont. ; Daniel W. Faulkner, Halloway, Ont. ; Louis A. Fortier, Philipsburg, Q. ; John R. Fraser, Hawkesbury, Ont.: Henry C. Gardner, Orillia, Ont. , Wm. B. Gibson, Dunham, Ont. ; Fred. S. Greenwood, St. Catharines, Ont. ; James I. Guerin, Montreal, Que. ; John A. Hutchinson, Bluevale, Ont. ; Wm. H. Howey, Delhi, Ont. ; John J. McCann, B. A. Milbury, Mass. ; John McCrimmon, Woodville, Ont. ; Milton McCrimmon, Ancaster, Ont. ; John K. McKinley, Perth, Ont. ; Ernest McNeill, Montague, P.E. I. ; Thomas W. Mills, M.A., Hamilton, Ont.; W. J. Neilson, Perth, Ont.; Edward W. Setree, Prescott, Ont ; D. F. Smith, Listowel, Ont. Fred. J. Stafford, Montreal, Que. ; Hiram N. Vineburg, Montreal, Que ; Arthur D. Webster, Kentville, N.S. ; John W. Wright, B.A., Cressy, Ont. Of the above Messrs. Greenwood and Gardner are under age. They have, however, passed all the examinations and fulfilled all the requirements necessary for graduation and only await their majority to receive their degree. The Holmes Gold Medal was awarded to Hiram N. Vineburg, of Montreal. The prize for the final examination was awarded to Thos. W. Mills, M.A., of Hamilton, Ontario ; the prize for the primary examination, to W. R. Sutherland, Montreal; and the Sutherland Gold Medal, awarded for the best examination in theoretical and practical chemistry, to John M. Lefevre, of Toronto. The following are the gentlemen, arranged in order of merit, who deserve honourable mention in the primary examination :—Messrs. Lawford, J. L. Brown, Imrie, Shaw, Stevenson, Gurd, Lefevre, Gray, Willis-ton, J. Smith, McCully and McGuigan. In the final examination :—Messrs. Neilson and Gibson. Botany : Rodgers and Gordon, 1st ; Carson, 2nd. Special prize for collection of plants, Beaumont Small. Practical Anatomy, senior class : Prize, John B. Lawford. Junior class : Prize, William L. Gray. Practical chemistry : Prize, A. D. Webster.

Births, Marriages, and Deaths.

BIRTHS.

At Montreal, on the 5th of April, the wife of W. H. Hingston, Esq., M.D., of a son.

At Hagersville, March 28th, Mrs. S. R. Porter, wife of John H. Porter, M.D., of a son.

At Ottawa, on April 4th, the wife of Dr. Sweetland, of a son.

DEATHS.

At his residence, Belleville, on Saturday, March 23rd, Jas. Lister, Esq., M.D., aged 65, son of the late Capt. Lister, Commander of Her Majesty's Coast Guard, Barnstaple, Devon.

At Hamilton, on the 29th of March, of pneumonia, John Bell, A.M., M.D., of Montreal, aged 33 years.

THE
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U. OGDEN, M.D., *EDITOR.*

R. ZIMMERMAN, M.D., L.R.C.P., London *107 Church Street Toronto, Corresponding Editor.*

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☞ **All Communications, Letters and Exchanges must be addressed to the Corresponding Editor.**

TORONTO. JUNE, 1878.

Selections: Medicine.

MINUTE ANATOMY OF THE KIDNEY.

Royal Medical and Chirurgical Society.

* * * * * *

The size and shapes of all casts are found to correspond with the excretory system of renal tubuli. Their most fertile source Dr. Southey believes to be the collecting tubes or ascending straight tubes of the third sub-division; in these are found the ordinary urate infarcta of new-borns, and the granular and fibrinous casts of chronic renal degeneration. The fine fatty streakings and lime deposits of old persons are seen more strictly limited to the transparent midway channels or down-loopers. The largest old fatty granular casts, which consist of cellular débris, leucocytes, fat dottings, and urinary salts, are doubtless cast or moulded in the gathering mains close to the orifices of the papillæ, but cannot be held to be secretions from the tortuous secreting tubes deprived, as has been by some supposed, of their epithelial linings. The value of casts in deciding the diagnosis and estimating the advancement of renal diseases has been much over-rated. Their different forms and appearances are derived in part from the materials of which they are composed, but in greater part are due to the length of time during which the gelatinised plugs of fibrinous material derived from the blood-serum have resided in the passages whose mould they take, the degree in which they have been soaked with urinary salts and stained with urinary pigments, and become degenerated. After many years' vain search for them, nothing like a desquamative shedding of the epithelium lining a tortuous tube has ever been observed by the author. And although red and white blood-cells, leucocytes, and escaped nuclei have been constantly observed in acute nephritis entangled in fibrinous plugs, the actual linings of the straight collecting tubes, with their low, sessile, columnar epithelium, have as such never been recognized by him. To form any clinical inference as to the nature and extent of renal disease from the sediment of the urine and tubal casts is about as unsafe as forecasting the issue of bronchitis or pneumonia by the expectoration. It is not that the casts or the character of the expectorated matters have no clinical value, but they have a relative one only. In renal disease, the casts should be appraised side by side with the diurnal urea excretion, and considered in reference to the quantity of albumen excreted at different periods of the complaint.—Dr. George Johnson said that he differed almost totally from Dr. Southey's statements, which, if true, would show that there was very little diagnostic value to be set upon the study of renal casts. The author's main argument rested on the assumption that all the convoluted tubes were connected with the looped tubes; but this could not be proved, and Dr. Johnson much doubted it as a fact, for he was quite certain that casts formed in the convoluted tubes do appear in the urine. For example, in cases of renal hæmorrhage from turpentine, casts appear in the urine formed of blood, which it is perfectly certain, comes from the system of the Malpighian capillaries; such casts are moulded in the convoluted tubes, and often appear quite convoluted themselves. Casts formed of white

blood-corpuscles must also proceed from the exudation of leucocytes from the Malpighian tufts, for no changes are found in the tubules indicating their passage through the walls and epithelium. The majority of fatty casts, too, had their origin in the tubes of the cortex, which was pre-eminently the seat of fatty degeneration. He was surprised at Dr. Southey's statement that he had never met with an epithelial cast, for he had seen casts covered with undoubted glandular epithelium in a vast number of cases. A common instance of epithelial shedding was met with in cases of obstructive jaundice. If the epithelium could not be got rid of, every inflammation of the kidney, even the slightest, might lead to fatal results from blocking of the channels. Desquamation implied formation of new cells as well as shedding of the old. Dr. Johnson also stated his firm belief that the large size of casts was an indication of their formation in tubes denuded of epithelium; whilst, on the other hand, small flattened casts were found when the epithelium remained and was swollen. He did not agree with Dr. Southey that the large hyaline casts were most numerous in acute cases; they occurred mostly in chronic cases, and their abundance was in direct relation to the amount of atrophy and disorganization of the kidney present.—Dr. Southey, in reply, said that, had he entered into pathological details, he should certainly have drawn attention to the fact that the products of renal inflammation could be absorbed as Dr. Powell had suggested; but his main object had been to show that the existence of the looped tubes (which, from their number, he believed were connected with all the excretory tubes) was *à priori* evidence against the passage through them of casts formed in the larger convoluted tubes. Granular material and detritus, no doubt, did traverse them, and in chronic parenchymatous nephritis the excretory tubes were found blocked with such products; but he had never seen anything like an epithelial cast which could have been formed by desquamation of the secreting epithelium. The convoluted tubes varied much in size in their course, and he had not met with casts reproducing their characters in this respect. As to the formation of small casts between swollen epithelium, that was pure speculation, and he believed himself that these finer casts came from the looped tubes.

INTESTINAL WORMS IN CHILDREN.

Medical Society of London.

Dr. Sansom read a paper entitled "Notes on some of the Common Disorders of Children." They were suggested by an experience of nine years at the North-Eastern Hospital for Children. More than half the cases which came under treatment were those of disorder of the alimentary canal; and, taking 500 cases promiscuously, 145 (or 29 per cent.) were disorders due to the presence of intestinal worms. The general prevalence is, no doubt, much higher. The symptoms produced by the parasites are divisible into a large class of direct and a small class of reflex phenomena, and the diagnosis is made by the direct observance of the parasites in the dejecta or about the body. The chief intestinal parasites of children in this country are the ascaris lumbricoides and the oxyuris vermicularis; the ova of the former being introduced by contaminated drinking water, and those of the oxyuris by direct communication or by ingestion. An individual once affected becomes a constant source of self-contamination, for the ova are conveyed by the fingers from the neighbourhood of the rectum to the mouth. Most of the symptoms produced by these parasites are the direct results of the irritation by themselves or their ova, so that not only do they produce the symptoms referred to in the rectum and intestines, but they cause unhealthy sores about the groins, whitlows and ulceration of the fingers, irritation of the nares, a well as many of the forms of impetigo. Stomatitis, hypertrophy of papillæ at root of tongue, pharyngitis and tonsillar ulceration could also be attributed to their direct irritation. The peculiar cough of vermiferous children was due to local irritation of the fauces. Reflex phenomena, as epilepsy, hemicrania, and chorea, were most common in the hosts of lumbrici. Santonine for lumbrici, aperients and enemata for ascarides, were indicated as the best line of treatment; a concurrent tonic treatment, and prophylaxis in the enforcement

of absolute cleanliness, were insisted on.—Dr. Edis spoke of the frequency with which vaginal leucorrhœa in children was due to the thread-worms creeping into the vagina. He had seen grave effects resulting from the use of a solution of carbolic acid as an injection. He referred also to possible infection from cats. Dr. De H. Hall said the central streak on the tongue was met with in most abdominal affections. He commended a Swiss baker who had announced his determination not to suffer his bread to be handled by intending purchasers. He advocated the use of iron both by the mouth and by the bowel, after the employment of free purgatives, in the treatment of oxyurides. Mr. Coles spoke of the frequency with which intestinal worms are met with among children in China, the lumbricus being most common. He advocated the free use of salt with food.—Mr. Wordsworth said that during a stay of two years in the West Indies he had not met with a single instance of the common thread-worm. Lumbrici are very common, and he mentioned a case of tetanus which had recovered after vomiting one of these worms.—Dr. J. Brunton was quite certain that these parasites are incompatible with perfect health. He first employs purgation to clear out as many worms as possible, and then gives some tonic to enable the child to digest its food. He advocated repeated doses of linseed oil in emulsion.—The President said that the skin will respond to reflex irritation, erythema in some cases, eczema in others, and so on. He mentioned an obstinate case of labial eczema due to irritation of a carious tooth. Copaiba was useful in the treatment of thread-worm.—Dr. Main said that in cases in which santonine had failed turpentine and castor oil were useful.—Dr. Sansom, in reply, thought the skin affections were the immediate result of the irritation of the worm, the ova having been found in the discharges. The ascaris mystax of the cat had been met with in man. Salt was certainly indicated; any article of diet, such as brown sugar, which goes through many hands, is to be suspected.—*London Lancet.*

The American Medical Association meets in Buffalo on June 4, 5, 6, and 7, commencing on Tuesday, June 4th, at 11 a.m.

ON PRURITUS VULVÆ AND DIABETES.

BY ALFRED WILTSHIRE, M.D., M.R.C.P., LONDON.

A few years ago, at a meeting of the Harveian Society, I called attention to the frequent association of pruritus vulvæ with diabetes. As continued observation confirms and strengthens the statements then made, and as my observations have never been made known otherwise than as above and stated in my lectures, I desire again very briefly to call attention to and emphasise the fact that pruritus vulvæ is often the only symptom of diabetes, and to point out the desirability of a systematic examination of the urine for sugar in suspicious cases.

Diabetes is only one among many affections with which pruritus vulvæ may be associated; but notwithstanding that it is mentioned in some books as a cause of vulvar itching, it is nowhere, that I am aware of, stated with adequate prominence.

Excepting itching, there may be no symptom whatever of diabetes—neither polyuria, loss of flesh, nor large appetite; and it is not therefore a matter for surprise that the underlying diabetic affection frequently remains unsuspected.

The observations of friends who have become acquainted with my views are confirmatory of them, and show that there is a more frequent connexion between diabetes and pruritus vulvæ than is generally believed. Accordingly, it seems desirable that further attention should be directed to the fact, seeing the gravity of the more important affection. It is hoped that a wider diffusion of the knowledge may prove useful to many.

Though matter of high interest, I am not concerned at present to discuss the pathogeny of diabetes; but regarding it from a purely clinical aspect, it is difficult to avoid the conclusion that there are at least two (if no more) forms of diabetes; or, to put it in another way, that sugar, or some allied body equally capable of reducing copper, on the test being applied in the usual way, may often be found in the urine of stout, florid (gouty) persons, as well as in the lean, wasted people who are looked upon as classical types of the disease.

I have at present under my care at St. Mary's Hospital an excellent illustration of this fact. When the patient, a stout, florid, middle-aged woman, first came under my care some months ago, she was tormented with violent itching of the privates. Suspecting diabetes, I had the urine examined, and then, and ever since, it has contained an abundance of sugar. She rarely passes more than a normal amount of urine, looks as hearty as can be, and from the first application of the treatment—a borax lotion—has almost lost the itching. As the object of this short paper is merely to put others on the track of diabetes through the pruritic symptom, I will add no more, but await hopefully the statement of the experience of others.—*Lancet.*

ON AN IMPROVED METHOD OF TREATING FACIAL PARALYSIS.

BY WILLIAM A. HAMMOND, M.D.

In no disease are prompt measures more necessary than in facial paralysis. A few weeks', and sometimes a few days' delay are sufficient to diminish the conductivity of the nerve, and the contractility of the paralyzed muscles, besides initiating a state of tonic rigidity in the latter, most prejudicial to the obtainment of a complete cure.

The paralysis of the muscles supplied by the facial nerve, when induced by cold, I have heretofore found to be generally manageable by the use of strychnia, electricity, passive exercise, and the support to the affected side of the face, given by a little hook placed in the angle of the mouth and fastened to the ear by an elastic band. These measures are by no means to be discarded, and one of them, strychnia, is to be even more energetically employed. The improvement to which I refer, in fact, consists in the administration of strychnia in increasing doses to the point of rapidly—as rapidly in fact as is consistent with prudence—bringing the patient under its full physiological influence.

For this purpose I make use of a solution of the sulphate of strychnia in the proportion of one grain to the ounce of water. Every ten minims of such a solution contain 1-48 of a grain of the medicine. Generally I begin with ten minims of this solution three times a day for the first day; the next day eleven minims are given three times; the next twelve, and so on, till the patient experiences a sensation of cramp or rigidity in the legs, or in the muscles of the back of the neck or of the jaw. Usually the cramp is first felt in the calves of the legs. The further administration is now stopped, and, if necessary, on the following day the solution is given as before, in doses of ten minims, and the doses are again run up to the extent of producing the muscular cramp.—*St. Louis Record.*

OBSTINATE HICCOUGH CURED BY EPIGASTRIC COMPRESSION.—In the *Lyons Medical* is a notice of a case of hiccough, occcuring suddenly in a man suffering from blenorrhagic urethritis, and lasting without interruption, either by night or day, for three weeks. Morphinated blisters and hot iron points to the epigastrium had been used in vain, as well as morphia injections in the course of the phrenic nerves, touching the back of the throat with liquid ammonia, and internally ether, bromide of potassium, bromide of camphor, chloral, sulphate of atropia, sulphate of quinine, musk, &c. Compression of the epigastrium arrested it, but as soon as the pressure was intermitted it recurred. Pressure was therefore permanently kept up by one of Petit's tourniquets, and had to be maintained for eight days, a recurrence of the hiccough following its removal every time within that period. It was subsequently necessary to replace it several times to ward off recurrences, but the spasms were ultimately definitively arrested.

TREATMENT OF INTERMITTENT FEVER BY CARBOLIC ACID.—Stern gave carbolic acid in recent cases as well as in old cases relapsing after quinine. He prescribed it according to the formula of Hehle: carbolic acid 0·40, distilled water 180·00 (or 1 in 72); one tablespoonful three times a day. Out of twenty cases so treated, fourteen were cured after a single dose of this solution, four after two doses; two cases resisted the treatment. Six were quotidian fevers, eleven tertian, and two quartan; in these last, there was no return of the attack after the beginning of the carbolic acid treatment; in the tertians, there was ordinarily one more attack, in the quotidian, two more.—*Gaz. Méd. de Strasbourg.*

Simulation of Fever. — Dr. Sellerbeck, (*Berlin. Klinik Wochenscrift*, No. 3, 1878) had a patient suffering from stenosis of the cardia and ulcer of the stomach, in whom he occasionally found a temperature of 39°·4 (102°·9 Fahr.) and a pulse of 120, with respirations 24 in the minute. Not being able to find any local trouble to account for this, he thought that the patient was malingering, and one day when the thermometer placed in the axilla registered 38°·5 (101°·3) the temperature in the rectum was found to be only 37°·8 (100°). He knew that by frequent deep respiratory movements he could raise his own pulse from 75 to 130, but did not know how to account for the elevation of temperature. The patient, however, admitted that when the thermometer was placed in the axilla under pretext of feeling cold, she was covered with the bedclothes, and then making a fold of her chemise in the armpit and breathing rapidly, she could cause sufficient friction between the bulb of the thermometer and the chemise to raise the index considerably. Sellerbeck subsequently experimenting on himself, found that he could thus make it mark 46° (114°·4). By friction against the skin, he could only, on account of the cold produced by evaporation of the sweat, even with a very dry skin, raise it to 42°·2 (107°·6).

The Source of the Respiratory Bruit.— In the second edition of his work on Auscultation and Percussion, Dr. Samuel Gee says: "I may as well at once declare that I hold to Beau's doctrine in this matter. Beau's theory is the following:—The lungs in the chest are distended; the tubes are well open, apt for conduction and reflection. The passage of the breath through the narrow glottis into wider spaces above and below, produces sonorous fluid veins, inspiratory and expiratory. The nostrils, the mouth, and the fauces partake in the production of the respiratory sound; however, for present purposes, it may be deemed to be wholly glottidean. Now this glottidean breathing murmur is conducted down the air tubes just as the low or whispered voice is carried and vesicular breathing loses the reverberating hollow quality in consequence of the badly conducting material of the spongy textures of the lung." Dr. Gee, of course, admits, however, the vesicular character of the crepitant râle.

Surgery.

THE TREATMENT OF SPINA BIFIDA BY MORTON'S IODO-GLYCERINE SOLUTION.

A case brought before the Clinical Society of London about the end of January last, served as a text for the discussion of the merits of this method of treatment. Mr. A. Pearce Gould exhibited the case and the opinions of eminent surgeons which it elicited are worthy of note. Up to the end of 1876, Dr. Morton of Glasgow had been able to collect a record of fourteen cases treated by the method he has devised, and in eleven of these the issue had been successful (Vide Canadian Journal of Medical Science March, 1877, page 90).

In the case detailed by Mr. Gould, the child was brought to the Hospital for Sick Children when eighteen months old. The tumour was the size of a cricket ball, sessile, with the usual characters of spina bifida. An opaque band was seen along the middle line of the lower three-fourths of the tumour. On September 15th, 1877, the tumour was tapped with a small hydrocele trocar at the upper part just to one side of the middle line; six drachms of fluid were removed, and half a drachm of Morton's iodo-glycerine solution was injected, the opening being closed with collodion. For the first few days the tumour became firmer and smaller, but at the end of a fortnight it had returned to its former condition. On October 5th tapping was repeated and one drachm of the iodine solution injected. Same result. On November 5th, operation repeated, two ounces and a half of fluid removed and two drachms of the solution injected. The sac became very tense, red, hot, and tender; fluctuation persisted for a week, but on the ninth day a marked change was noted; the tumour was smaller, flaccid, elastic, but not fluctuating, and did not become tense when the child cried. On December 14th, there being still distinct fluctuation in the now thickened cyst, it was again tapped and emptied by the removal of six drachms of a yellow, viscid, highly albuminous fluid; communication with the spinal canal was completely obliterated. One drachm of the iodine solution was injected,

well manipulated, and allowed to escape. The tumour had since then gradually shrunk, and now presented a thick pad of skin, quite dense at the lower part, softer above where there was a small spot which still fluctuated, from this Mr. Gould withdrew about half a drachm of yellow turbid fluid on the 23rd of Januray, 1878.

After each operation, the temperature rose to 101° and 102°·8 and continued above the normal from two to six days. The after treatment consisted in thickly smearing the tumour with collodion each morning and supporting it with wool and a bandage. Out of twenty-three cases of spina bifida examined by Mr. Gould, nerves had been found in the sac in twenty cases, in two they were absent, and in one their presence was doubtful. They occupied the middle line, the position of the opaque band in this case. The fluid removed at the first three operations was colourless, becoming slightly turbid on standing, of specific gravity 1011, faintly alkaline, containing a trace of albumen, chlorides, and phosphates. With Fehling's copper solution it gave no reaction; but Dr. Dupré analysed it, and after concentration, got distinct evidence of sugar. In fluid of spina bifida, or that escaping from the skull in fracture, sugar must not be supposed to be absent unless the tests be applied to the fluid after evaporation. On pouring some of the iodo-glycerine solution on to some spinal fluid in a narrow glass, it was found that the solution went to the bottom and did not mix. Mr. Gould thinks this also occurs in the sac, for the fluid oozing from the puncture after injection was unstained with iodine. There was considerable difficulty in arresting the oozing of cerebro-spinal fluid, which was so dangerous if allowed to continue. Mr. Callender (the President) suggested that it would be found useful to introduce the trocar and canula through and beneath the skin some little distance to the side of the tumour. In this way direct puncture was avoided and compression after removal of canula was more effectual in stopping oozing. He remarked that a gentleman, a subject of spina bifida, who had formerly been under Sir Astley Cooper, died under his care at the age of seventy-four, having led an active professional life, with bladder and rectum troubles and defective innervation of lower extremities. Mr. Howard Marsh believed that Morton's plan would prove a valuable addition to the surgery of childhood.

Mr. Thos. Smith thought it the very best method of treatment. The injection of watery solutions of iodine was very rarely successful. It was interesting to learn that the difference in the result of the iodo-glycerine solution was probably due to its remaining in the lower part of the sac, and its effects being therefore more limited. He had employed it successfully in four or more cases. Mr. Holmes in his *Diseases of Children* speaks of a man with spina bifida, aged forty-three, who survived an operation for stone. He himself was consulted by a man of middle age with spina bifida, who was able to perform all his professional and domestic duties. He could not say what might be the ultimate result in cases treated by this method, but he was bound to say that in estimating the value of the result in such cases as he had cured by other means, it would have been better for the patients had they not survived the treatment.

Abortive Treatment of Furunculus.—Dr. Lieven observed at the Petersburg Medical Society (*Petersburg Med. Woch.*, Dec. 29) that all modes of treatment hitherto tried (such as early incision, cauterizing, and cold or warm applications) have failed to arrest the further development of furunculus that has once commenced. The following procedure, however, brings it to a stand: A burning, pricking, itching, suddenly occurring in a normal portion of the skin, announces the commencement of the development of the furunculus, and on the same day a small and quite superficial induration can be felt at the spot. If the skin be now superficially scraped with a small knife, so that a drop or two of blood may be pressed through the epidermis, no furunculus will be developed. This result would seem to show that the affection originates in the uppermost layer of the corium, and perhaps in the capillaries of the papillæ, and not, as hitherto received, in the subcutaneous connective tissue, with succeeding necrosis of the corium and epidermis. Disturbance of the digestive organs (frequently diarrhœa) always precedes or accompanies furunculus; but a plethoric or decrepit constitution is no necessary condition, as it may occur in one that is quite normal.—*Med. Times and Gaz.*

APPLICATION OF TRUSSES.

When you advise any of your patients to use a truss you should always make it a rule to superintend its first application. If you cannot be present yourself, give your patient the following *directions.* (1) Never accept a truss until you get one which fits. (2) Try it by putting it on, and (*a*) stooping down and rising up suddenly; (*b*) by coughing violently and persistently; (*c*) by separating the limbs and stooping; (*d*) by crossing the limbs and sitting down; (*e*) by going through all kinds of motions. Of course the truss is not a proper one if the hernia slips away from it in the course of any of these motions.

In wearing a truss the following *precautions* must always be had. (1) The patient must never take off the truss till he or she is in the recumbent position. (2) Before putting it on again the parts must be rubbed until they are all aglow, so that an active circulation and full secretion are maintained. (3) The truss must be taken off the last thing before the patient retires, and put on the first thing in the morning. (4) In the case of a child the truss should be worn all the time, both night and day, after the first feelings of discomfort have passed away. At first it must of course be taken off two or three times, while the skin is thoroughly rubbed and anointed, and then put on carefully again. If these rules are conscientiously adhered to, a cure may be expected in the course of two or three years. The truss, at any rate, should not be taken off sooner than that. I may say, in closing, that permanent cure is much more likely to ensue if a hard than if a soft pad had been employed.—*Dr. D. Hayes Agnew, in Phil. Med. Times.*

Post-Partum Hæmorrhage. — Various remedies have from time to time been recommended in the *British Medical Journal* for the treatment of *post-partum* hæmorrhage; but I do not remember to have seen large doses of turpentine ever advocated. Some time since when discussing the subject with a friend, he told me he knew an old practitioner of large midwifery experience who never went to a case without taking two draughts, each containing half an ounce of spirit of turpentine; and he never knew them fail.—Jas Pollard, Torquay.

Midwifery.

From *Gazette des Hôpitaux.*

PHLEGMON OF THE PERIVESICAL OR PRE-PERITONEAL CAVITY OF RETZIUS.

There exists between the anterior wall of the abdomen and the peritoneum a space limited anteriorly by the recti muscles; behind, by the peritoneum and the *fascia transversalis;* above, by Douglas's folds; below, by the summit of the bladder in its empty state; and laterally by the arcades of Douglas's folds. This space, to which the name of pre-peritoneal cavity or cavity of Retzius has been given, may be the seat of several pathological conditions, and especially of phlegmons, either primary and spontaneous, or consecutive and allied to congestive or inflammatory states of the organs contained in the abdomen or pelvis, and which present special characters in all cases. It is to the study and description of these phlegmons that Dr. J. M. Castanedo-y-Campos has devoted his inaugural dissertation, which constitutes a veritable monograph, the principal conclusions of which we deem it of interest to make known. . . . In cases observed by M. Castanedo-y-Campos either in M. Guyon's wards, or in those of M. Constantin Paul, or of M. Dujardin Beaumetz, the phlegmasia had for its cause or point of de parture either an inflammation of the prostatic tissue, or an antecedent typhoid fever, or some menstrual trouble, and in one case no cause could be ascertained.

The signs of this affection are, in the beginning, those of urinary retention or exceptionally those of an intestinal obstruction, accompanied by pain in the hypogastric region which radiates as in colic. Shortly afterwards a median hypogastric tumour appears; the urethra remains permeable, and the evacuation of the urine in nowise affects the volume of the tumour. The functional symptoms consist, on the part of the bladder, in dysuria or anuria, but the urine remains normal; on the part of the rectum, in constipation or diarrhœa. The general symptoms are: fever, vomiting, chills.

The course of the disease varies a little as to duration and as to the initial symptoms. The

termination may be by resolution, by induration, or by suppuration. The opening of the abscess may be through the skin, into a neighbouring hollow organ, or into the peritoneal cavity. In the only autopsy which had been made, the suppurating phlegmon had opened into the peritoneal cavity and had determined a fatal peritonitis and a partial destruction of the recti muscles of the abdomen at their inferior part. In other cases the pus made exit through the walls of the rectum or through the skin. It is easy to conclude from these facts that the prognosis must be grave.

The treatment of the swelling, in its inflammatory period, should be the same as that for other phlegmons : rest, restricted diet, emollients, &c.

When fluctuation has been recognized, you should hasten to lay open the swelling; if other purulent collections exist in communication with it, counter openings should be made.

Lastly, it must never be forgotten that it is possible to obtain resolution or induration, and consequently you should always insist upon early treatment.

[During the past year M. Constantin Paul and others have reported to the various societies of Paris several cases of hæmatocele in this pre-peritoneal cavity or canal of Retzius, and we ourselves have had a case under observation which terminated spontaneously in resolution. —Ed. Can. Jour.]

Physostigma Faba in the Convulsive Diseases of Children has been used with marked success by Dr. J. S. Trezevant (*Transactions of South Carolina Medical Association*, 1876) in several cases. The convulsions were readily controlled after every other remedy was fully tried in vain.

Dr. McLawrin (*Edinburgh Medical Journal*, vol. 11, p. 319) reports a remarkable case of tonic convulsions persisting for many months, attacks recurring several times a day, in which physostigma greatly moderated the attacks and effected a cure in a few weeks. The dose was gradually increased until the equivalent of four grains of the bean had been taken four times a day. In another case, a little girl 4½ years old, who had had convulsions four or five times a day for nine months, not a single attack occurred after the first dose of this medicine.—*Virg. Med. Monthly.*

Hospital Reports.

HOUSE OF PROVIDENCE.

SEPARATION OF THE EPIPHYSIS OF THE CAPUT FEMORIS.

For the privilege of reporting a case of this rare accident we are indebted to Dr. Senkler, under whose care it came, and to Mr. Jones, clinical clerk, for its transcription.

From the statement of the child, it would appear that she fell directly upon the outer side of the thigh, which circumstance, in Rodet's opinion, in which Hamilton concurs, should have given rise to an extra-capsular fracture; but, had some observant person been present at the time, it might have been noticed that the concussion was transmitted from the front as well, which Rodet admits would then be likely to produce an intra-capsular injury. The occurrence of this rare accident, although not admitted by Hamilton, in the absence of *post-mortem* proof, is mentioned by Liston, and seeming instances have been recorded by Willard Parker, Mr. South (in a note to Chelius's Surgery), Dr. Post, Sayre, and Hamilton himself.*

February 2nd.—Mary W——, aged fourteen, of the House of Providence, while sliding down the balustrades fell a distance of about eight feet upon the right trochanter major.

Drs. Hobley and Cameron examined the patient immediately after the accident and discovered shortening of right lower extremity from one-eighth to one-fourth of an inch; no eversion or inversion of the foot, no crepitus, but considerable pain on movement; thought if fracture existed it must be impacted intra-capsular.

February 3rd.—Dr. Senkler made an exam-

* Mr. Hornidge, in the article on Fractures in Holmes' System of Surgery, says: "Although it (separation of epiphysis) has been demonstrated, by post-mortem examination, only at both ends of the humerus, femur tibia, and fibula, and the lower end of the radius, yet it has been diagnosed during life in other parts of the body. . . . . The epiphyses which enter into the formation of the ginglymoid joints unite with the shaft of the bone sooner than those which correspond to the enarthrodial; therefore separation of the latter is the more frequent.

ination, and found the thigh slightly flexed and somewhat adducted, the knee of the injured limb being drawn across the sound one, toes inverted, the rigid muscles firmly holding the thigh in this position. There was pain and tenderness in front of the hip joint, and the child was feverish, and very unwilling to be moved.

February 4th.—The child's condition the same as on previous day. Upon causing her to stand up, the injured limb maintained the same position—slight flexion of thigh and leg adduction of thigh, and inversion of toes. She was quite unable to bear weight on the injured side, although anxious to do so to avoid further examination.

Dr. Hobley, who examined the case with Dr. Senkler, administered chloroform, and as soon as muscular power was overcome by the anæsthetic, the leg lay flat upon the bed, and the foot turned in or out indifferently. The mobility of the affected joint was found to be complete.

Upon flexing the thigh and rotating, the knee being turned over the abdomen, an obscure crepitation was discovered. By making extension from the ankle, the left hand being placed over the hip joint, with fingers pressed against the spinous process of ilium, the same crepitus was both felt and heard each time the limb was extended and relaxed, and the trochanter was felt to move up and down to a limited extent. The crepitus was not that of freshly broken bone, but rather conveyed the impression of friction between roughened cartilaginous surfaces. After this examintion, there existed shortening to the degree of five-eighths of an inch.

Diagnosis: Separation of epiphysis of head of femur. Treatment: Liston's long splint was applied; the foot of the bed was raised about seven (7) inches, and extension made by adhesive plaster and a weight of nine (9) pounds running over a pulley.

The limb was left undisturbed for six (6) weeks, and on March 18th, the splint being removed, a shortening of barely one-fourth of an inch was discoverable; no pain on movement of the joint. Upon applying Bryant's and Nelaton's test, the trochanters were found to be on the same level, and no evidence of separation remained. The adhesive plasters were reapplied and attached to a weight of six (6) pounds with cord and pulley, but the long splint was now dispensed with. On March 30th, eight weeks from the accident, everything was removed.

On April 11th, Dr. Senkler made a final examination; the patient had then walked out on to the balcony with the aid of a chair. She could almost bear the whole weight of the body on the injured side—the inability to do so completely is not owing to pain, but to muscular weakness. Careful repeated measurements with the tape give shortening of about a quarter ($\frac{1}{4}$) of an inch. Cowling's and Bauer's method of suspending a plumb-line from the vertebra prominens revealed no shortening, as the cord ran vertically through the internatal fold, while the soles of the feet appeared to rest evenly upon the ground.

MEETING OF SURGICAL SOCIETY OF IRELAND, MARCH 1ST, 1878.

Rupture of the Tendon of the Gluteus Maximus.

BY ROBERT M'DONNELL, M.D., F.R.S.,
President of the Royal College of Surgeons, Ireland.

Martin Brady, aged 63, admitted into Steevens' Hospital December 26th, 1877; healthy; well built; personal and family history good. He stated he was accompanying one of his carts which was heavily laden behind. To prevent the cart toppling backwards, he took hold of the shafts projecting from behind, but in passing through a gateway, the cart was thrown back, and he was brought violently down to an almost sitting position, and then made a strong effort to throw the cart forward, the man being exactly in the position which was calculated to put the greatest strain upon the gluteus maximus muscle. At that moment, he felt as if he had received a severe blow from a stone and heard a sharp snap, which he described as like a clap of the hands. He immediately experienced acute pain about the fold of the left nates, which so disabled him that he fell on the ground. He received no treatment from the date of the accident, October 5th, until he was received into the hospital,

December 24th. On admission, his condition was as follows:—In the gluteal region, the gluteus maximus on the side of the injury was soft, flabby, and in fact completely paralysed; and near to the insertion where the muscle joins its tendinous expansion from the line of the great trochanter and linea aspera, there was a thickened welt, indicating the place where the process of union was commencing to take place Accompanying these symptoms, there was a marked paralysis of the limb. The palsy was much more complete as affecting the extensor muscles of the leg. It occurred to me that the sciatic nerve had been injured, but on examination, it was found that all ordinary sensibility was quite perfect. As such cases are not often met, they must be treated on general principles. The patient was kept quiet, but allowed to move about with the limb strainght, so as to keep the ends in apposition. He was now able to walk a good deal better than when he entered the hospital. The paralysis of the limb had very much improved, and the patient was now able to walk very well with one stick. The complete paralysis of the muscle was remarkable, and looked almost like an effort on the part of nature to take tension off the muscle, to allow it to remain passive and quiescent while union is going on. The Dr. mentioned other cases of ruptures of different tendons. There did not appear to be any exact rule with regard to the place where the muscle would give way. In the case described, it appeared, so far as one could make out from careful examination, to have torn at the part where the tendinous expansion and the muscular fibres meet. The snap or rupture of a tendon seems to be very constantly accompanied by a sensation, as if the patient had received a smart blow or kick.

In the discussion which followed, Mr. H. G. Croly said, he had not seen, nor did he know of any recorded case of rupture of the tendon of the gluteus maximus. But it struck him that the paralysis might be explained in this way: that the great violence which was necessary to rupture so powerful a tendon, might also have stretched or partially torn the sciatic nerve, as the distance from the nerve to the tendon was not great. Of the rupture of other tendons, he had seen a few examples. This winter, he had a case of rupture of the plantaris. The patient was a clergyman, and in going up the steps of his church, he turned round suddenly to see if anyone had given him a blow of a stone in the calf of his leg. As he saw no one near him, he rubbed his leg. Subsequently, he consulted a medical practitioner, who gave him a liniment to rub on the leg, which, however, continued very painful. He afterwards consulted him (Mr. Croly). From the cases he had seen of rupture of the plantaris tendon, he thought the tendon generally ruptured about four inches up from the os calcis, and not at all near to the belly of the muscle. Of course, that was a well-known accident in ballet-dancers.

After several other members of the society had joined in the discussion, the President said, in reply, with regard to the observations of Mr. Croly about the paralysis depending upon some rupture or injury to the nerve, he could not adopt that view, for the reasons he had already given. He thought that if the nerve were in any degree torn, or blood effused into its texture at the time of the injury, as it was a compound nerve with both motor and sensitive fibres, they would expect to find some paralysis of sensation in the lower limb, as well as some paralysis of motion, while there was nothing of the kind. Therefore he thought they must regard it as one of those forms of reflex paralysis which they knew sometimes occur. Sir James Paget had given some cases in which a severe contusion had been followed by paralysis of muscles in the neighbourhood. He (Dr. McDonnell) thought the case he had related must be a case of that kind. They knew that the nerves and bloodvessels were capable of undergoing a great deal of extension without giving way.—*Summarized from the Medical Press and Circular.*

Abdominal Compression in Ascites.—In the *British Medical Journal* for 20th April, 1878, Dr. Stephen Mackenzie, of the London Hospital, reports two cases of obstinate ascites successfully treated by means of a bandage or tightly fitting abdominal supporter. In the first case, the use of the bandage was supplemented by tonics, but in the second, the credit of the recovery appears to be due to the supporter alone, as no medicine was administered except the mistura rubra of the hospital (burnt sugar and water). He commends the plan most highly.

EXAMINATION QUESTIONS—COLLEGE OF PHYSICIANS AND SURGEONS, ONTARIO, 1878.

CHEMISTRY—*1st Year.*—J. MORRISON, M.D., M.A., *Examiner.*

1. What is heat? How is it measured? Define latent heat; specific heat; atomic heat; and the thermal unit. Explain the construction and use of the thermometer and convert 25° Fahrenheit to centigrade V 75° C to F.
2. Define specific gravity, and show how the sp. gr. of liquids and gases is found. Explain the construction and use of the hydrometer, the densimeter, and the eudiometer.
3. Classify the non-metallic elements as to their quantivalence. Name the following compounds, HBr, $HClo_3$, PH_3, H_2O, NH_3, H_2S, and state the functions H performs in each.
4. How is the composition of the atmosphere determined as regards N and O? What other elements or compounds are found in it? What functions do they perform, and how are they detected.
5. Give the composition, mode of preparation, properties and uses of hydrochloric acid, ammonia, sulphuretted hydrogen, nitrogen monoxide, sulphurous acid. Explain the reactions in each case.
6. What are the sources of I and P? How are they prepared? What compounds do they form with H? Describe the different modifications of P. How much phosphoric anhydride can be obtained by burning 20 grains of phosphorous.
7. What are the chief ores of arsenic? Name its oxides, and state how they are prepared. Point out the general chemical relations of As., P and N compounds.
8. Describe Marsh's test for arsenic.

CHEMISTRY—*2nd Year.*—J. MORRISON, M.D., M.A., *Examiner.*

1. Classify the commonly occurring metals as to their quantivalence. Define and give examples of the following, a dyad radical, an anhydride, a hydrate, an acid salt.
2. Explain by diagrams or equations the preparation of potassium iodide, potassium chlorate, mercuric chloride, ferric sulphate, and ammonium chloride. Describe their properties and uses.
3. Write down the typical formulæ of the most important cyanogen compounds. Describe the mode of preparation, and chief properties of hydrocyanic acid.
4. Give a short account of the principal phenomena of fermentation. Name its five principal forms and the products of each.
5. Name the properties and mode of preparation of ethyl alcohol, and state the chemical changes which occur when a primary alcohol passes to the corresponding aldehyde and acid.
6. How is valerianic acid artificially prepared? In what natural bodies is it found, and what is its chemical relation to amylic alcohol?
7. How are ethyl nitrite and chloral hydrate prepared? What are their formulæ, properties, and uses?
8. How are quinia disulphate and strychnia prepared? Give the chemical characters of each, and show how salicin may be detected in the former, and brucia in the latter.

PRACTICAL CHEMISTRY.—J. MORRISON, M.D., M.A., *Examiner.*

1. What impurities are found in sulphuric acid, acetic acid, magnesium sulphate, and potassium carbonate? Give the tests for them.
2. What are the tests for hydrocyanic acid? How much anhydrous hydrocyanic acid is there in an eight ounce bottle of medicine, six fluid drachms of which precipitated with a solution of nitrate of silver, shall yield four grains of dry cyanide of silver.
3. Give three tests for salts of zinc, three for manganese and four for lead. Give the reactions in each case.
4. How is potassium chloride detected in potassium bromide, and how are iodides removed from a solution containing chlorides and bromides?
5. How is potassium iodate detected in potassium iodide, and how separated from it?
6. Describe Reinsch's test for arsenic. Under what circumstances may its indications prove fallacious? What is the peculiar value of Fleitmann's test (*i.e.*, the action of AsH_3 on AG, NO_3).
7. How would you detect mercuric oxide in "red lead," calomel in corrosive sublimate, and lead carbonate, in barium sulphate?
8. Give tests for albumen, bile, and sugar in urine.

ANATOMY—*1st Year.*—DR. BERGIN, *Examiner.*

1. Into how many classes are bones usually divided? Name them and give examples of each.
2. What are muscles; how are they formed; of what do they consist; and how many, and what kinds of muscular tissue are there in the animal body?
3. Enumerate the ligaments of the hip joint, and give their points of attachment.
4. Name the openings connected with the diaphragm and the parts transmitted through these openings.

ANATOMY—*2nd Year.*—DR. BERGIN, *Examiner.*

1. Describe fully the articulation of the spine with the cranium, including the vertebræ as well as the ligaments.
2. How many kinds of blood vessels are there? Name and describe them briefly.
3. Give the relations of the ulnar artery from its commencement to its termination.
4. Name the muscles of the anterior thoracic region and the nerves that supply them.

ANATOMY—*3rd Year.*—DR. BERGIN, *Examiner.*

1. Name the tunics and humours of the eye, also the vessels and nerves distributed to it.
2. Describe fully the par vagum; its composition or divisions; its origin; its course and relations; its branches, and the organs it supplies.
3. Describe the stomach; its situation, structure, shape, size and weight, and how and by what it is held in its place.

ANATOMY, SURGICAL.—DR. BERGIN, *Examiner.*

1. What bones enter the knee joint? How are its articular surfaces covered and how connected? Whence are the vessels and nerves that supply it derived? What are its actions, and how and by what means are they performed?
2. Where does the internal carotid artery commence? where terminate? Describe its divisions, its relations in such division, its branches, and the peculiarities and irregularities to which it is subject.
3. Name the coverings of direct inguinal hernia.
4. In the operation for median lithotomy, what parts must of necessity be divided?

MICROSCOPIC ANATOMY.—J. W. McLAUGHLIN, *Examiner.*

1. Classify the epithelia of the human system according to their microscopic appearances, and state where each variety is found.
2. Give the minute anatomy of the cortical portion of the kidney.
3. Give the microscopic structure of bone.
4. Give the microscopic structure of voluntary muscle.

MEDICAL JURISPRUDENCE.—GEORGE LOGAN, M.D., *Examiner.*

1. State the appearances and conditions to be observed when called to a case of recent death from suspected poisoning.
2. How soon after death does decomposition begin? Give the order of its occurrence, with the conditions favouring and retarding the process.
3. State how you distinguish human blood corpuscles from that of animals.
4. What is the medico-legal value of the appearance, direction, and extent of bodily wounds from violence?
5. Describe the hydrostatic test, and define its medico-legal value in the detection of crime.

QUESTIONS ON BOTANY.—FIFE FOWLER, M.D., *Examiner.*

1. How do vegetable cells grow, multiply and become transformed?
2. How do spores differ from seeds?
3. What are stomata? Where are they found? What is their function?
4. Describe the component parts of the stamens, pistil, and mature ovary as found in the common garden bean.
5. How would you distinguish exogenous from endogenous plants?
6. How would you proceed with the analysis of a plant to determine what order it belongs to?
7. Give some of the chief characteristics of the following orders of plants:—viz., compositæ, cruciferæ, labiatæ: and mention some plants used in medicine which belong to these orders.

OPERATIVE SURGERY.—J. W. McLAUGHLIN, *Examiner.*

1. In fracture of the femur at its lower third, what displacement is liable to occur, and by what agency produced? Treat the fracture.
2. Give the treatment of compound comminuted fracture of the tibia, with single fracture of the fibula.
3. Name the dislocations of the humerus, and give the symptoms and treatment of the one of most frequent occurrence.
4. What circumstances would indicate lithotrity in preference to lithotomy, and describe the operation.
5. Under what circumstances should the bladder be punctured, and how is the operation performed?
6. Diagnose and treat hydrocele of the tunica vaginalis testis.
7. Give the operative treatment for irreducible-oblique inguinal hernia.

SURGERY OTHER THAN OPERATIVE.—J. W. McLAUGHLIN, *Examiner.*

1. Explain the processes by which repair of wounds is accomplished.
2. Name the causes which retard or prevent repair.
3. Give the causes, symptoms, prognosis, and treatment of psoas abscess.
4. What are the pathological conditions, symptoms, and treatment of phlebitis?
5. Give the causes, symptoms, and treatment of retention of urine.
6. What are the symptoms and treatment of acute synovitis of the knee joint?
7. Describe a femoral hernia, and give its treatment.

PRACTICE OF MEDICINE, ETC.—FIFE FOWLER, M.D., *Examiner.*

1. Give the meaning of the following words and terms: anæmia, leucocythæmia, chlorosis, pyæmia, septicæmia, marasmus, thrombosis, œdema, idiopathic, symptomatic, hypostatic, congestion, subjective symptoms, objective symptoms.
2. What are the chief causes of fatty degeneration Give a short account of this pathological process, as it occurs in muscular fibre.

3. (*Case.*)—A man aged thirty complains of *cough, dyspnœa,* a feeling of *tightness* across the upper part of the abdomen, and general weakness. On examination, the cardiac dulness is not found to be increased, the apex beats feebly between the fifth and sixth ribs, a systolic bellows murmur is heard over the apex, it is very faintly head at the base. Pulse 100, soft and small, considerable dyspnœa and cough *sputa tinged with* blood, sibilant and crepitating râles heard over both lungs, but there is no dulness or increase of vocal resonance, the general surface is slightly jaundiced, and there is occasional vomiting: there is some œdema, which in a few days increases, and fluid accumulates in the abdomen: soon there is found dulness on percussion on right side as high as the scapula, and increased vocal resonance, the dyspnœa increases and mouthfuls of florid blood are spat up; in a few days after, he can lie only on the left side, which is found to be quite dull on percussion, with absence of respiration: death soon results. Point out the significance of the symptoms and physical signs, give the appropriate treatment, and state what morbid conditions you would expect to find on making a *post-mortem* examination.

4. Give and diagnose the morbid conditions which produce vomiting.

5. On what does the dropsy depend which is apt to follow scarlatina? What treatment would you adopt to prevent its occurrence? In what ways may this dropsy prove fatal? What steps would you take to prevent a fatal termination?

6. How would you recognise and treat a case of diphtheria occurring in the throat?

TOXICOLOGY.—GEORGE LOGAN, M.D., *Examiner.*

1. Give the difference between corrosive and irritant poisions, and name two or more of each kind.
2. State the causes and parts of the body which may favour or retard the absorption of poisons.
3. Give the symptoms, treatment, and ordinary tests in poisoning by belladonna.
4. How would you distinguish cholera from poisoning by tartar emetic?

PHYSIOLOGY—*1st Year.*—J. E. KENNEDY, M.D., *Examiner.*

1. What are the peculiarities of cartilage.
2. What is meant by the terms (a) residual air; (b) supplemental air; (c) breathing or tidal air; (d) complemental air?
3. Describe the arrangement of the capillaries of the air cells of the human lungs.
4. State the pulse rate of (a) new born-infant; (b) child of third year. Also within the limits of ordinary health, what are the chief causes of variations in the pulse rate in the adult?
5. What glands secrete the saliva? Give (a) composition of secretion; (b) probable uses in the process of digestion.
6. Name the ductless glands.

PHYSIOLOGY—*2nd Year.*—J. E. KENNEDY, M.D., *Examiner.*

1. Describe the air cells of the human lung.
2. How are bones developed and how nourished?
3. What are the natural methods for reduction of temperature?
4. Name (a) the constituents of healthy urine; (b) the quantity voided in twenty-four hours; (c) the specific gravity.
5. Name the coats and structure of the arteries.
6. What is the structure of the pons varolii.

MATERIA MEDICA AND THERAPEUTICS.—H. H. WRIGHT, M.D., *Examiner.*

1. Give of each sample enclosed (in envelope) the officinal name, therapeutic properties and doses, the active principles and doses, and officinal preparations. (The samples enclosed were: a nutgall, buchu leaves, some santonica seeds, a slice of a colchicum corn, and a piece of socotrine aloes.)
2. Give the officinal name of cod-liver oil; its commercial history; its composition; its physiological effects; its therapeutics; and its mode of administration.
3. Give rule for apportioning doses to ages, with an example of a hydragogue cathartic at eight years; and a tonic mixture at sixteen years, and an active emetic at one year.
4. How do you classify the so-called "mineral waters?" Give the therapeutic properties of each class.
5. Mention the various modes by means of which medicinal substances enter the organization, with an example of each.

SANITARY SCIENCE.—H. H. WRIGHT, M.D., *Examiner.*

1. Describe water, and give the usual sources of its supply.
2. What impurities are most probably present in water from each of these separate sources?
3. What quantity is supposed to be sufficient for a healthy adult daily? In what form or forms is it supplied to him?
4. Give a detailed account of means for purifying it.
5. Enumerate and briefly describe the steps you would advise on the occurrence of an epidemic in a Canadian village.
6. What is the ordinary mortality average annually per 1,000 in the principal cities of Ontario? At what periods of life is it greatest, from what diseases, and from disease or disorders of what particular organs?

MIDWIFERY OTHER THAN OPERATIVE, ETC.

1. Why in the early stage of what is called a natural labour, is the character of the presentation more obscure than in less favourable cases?

2. State your diagnosis between a presentation of the hand, or arm, and that of the foot, knee or hip, and the proper management of each.
3. In retarded delivery of the head, in a footling case, what benefit would you expect to derive from depressing the chin of the child down towards its breast?
4. Which form of puerperal convulsions do you regard as the most dangerous? State your treatment of such cases, also why it is important that you should, if possible, ascertain the character of the urinary secretion, and the general health of all women by whom you may be engaged for obstetric attendance.
5. Give the symptoms of the several stages of acute hydrocephalus in children.
6. State your diagnosis between small-pox and measles, or scarlatina, and the respective dangers of each, with the periods of their incidence.

OPERATIVE MIDWIFERY.—JOSEPH WORKMAN, M.D., *Examiner.*

1. Describe the conditions of a labour which you may regard as not only warranting, but also as demanding the employment of the forceps; and state why it is that forceps delivery is least harmful where it is least required.
2. What precautions should be taken before introduction of the forceps, and what in the introduction? Why should you use traction only during pains, and what should be the direction given to the handles in the progression downwards of the head, and in its final emergence?
3. A delivery by podalic version, why is it important that particular attention be given to the direction of the feet of the child? State under what circumstances it may be dangerous, or impossible, to change the direction taken by the feet.
4. Describe the process of craniotomy, and state the circumstances which render this alternative imperative.
5. In which sort of labours—the finally very slow, or the very rapid—is laceration of the perineum most likely? State the precautions to be taken to avert this serious accident.
6. In cases of retarded expulsion of the placenta, how will you ascertain that the delay arises from simple detention by the contracting uterus, and not from abnormal adhesion?

Original Communications.

ALBUMINURIA IN PREGNANCY.

BY J. A. MULLIN, M.D.

President, Hamilton Medical and Surgical Society.

Having some notes of cases where albuminuria took place in connection with pregnancy, it may be of interest to bring them before this Society. The first case occurred in 1868. Before this, I had been in practice about seven years, and had attended a good many cases of midwifery without seeing any patient suffering from this complication. When I say the first case, I refer to the first in which convulsions took place, for it is very probable that in many cases the urine was albuminous, as œdema of the face and extremities is frequently noticed in cases, although convulsions do not occur. Rosenstein states that convulsions take place in but one-fourth of all cases of nephritis. It is probable that where œdema of the face and extremities is present, the urine is albuminous, but I have not verified this, for in practice we do not have an opportunity to examine the urine in many cases, for the most part, only in those where important symptoms arise.

I find by a reference to Churchill that in 103,537 cases of labour there were 172 cases of convulsions, or about one in 602 cases. The proportion seen by different practitioners varies greatly. Dr. Churchill notes two cases in 600 labours; Dr. Granville, one case in 640 labours; Dr. Bland, two cases in 1,897 labours; Mad. Boivin, 19 cases in 20,357 labours, or about one in a thousand.

Braun states that in Vienna 44 cases of convulsions occurred in 24,000 labours, and Bartels, Ziemssen's Cyclopædia, concludes that nephritis occurs in the proportion of one case in 136 cases of pregnancy.

No. 1.—This patient, aged 35, had been very ill in a pregnancy which was ended by a miscarriage about two years before. She then resided in one of the Eastern States: I could learn very little of this illness; she had told her friends that the physician in attendance had predicted that if she became pregnant again it would be fatal to her. I was called to her bedside before seven a.m., at about the sixth month of pregnancy, on account of a fit: the spasm had ceased before I arrived, and she was somewhat conscious; I introduced the catheter, and found only a small quantity of urine in the bladder (one ounce). This, on being boiled, was thick with albumen. I waited with her for some time, but as no spasms took place, left her, having recommended means to promote perspiration. Labour pains came on at intervals, and I

was re-called about ten a.m., the second convulsion having taken place a few moments before. Dr. Rosebrugh accompanied me. We gave chloroform, and finding the os dilated, the foot was easily reached and delivery effected in a short time. Convulsive attacks took place from time to time, the fits came on very quickly when the anæsthetic was partly withdrawn; while deeply under its influence, the patient for a time was protected from very severe attacks. In the course of the afternoon, the spasms came on very frequently, and the heart's action growing feeble, the chloroform was withdrawn. Hot air baths were used to promote perspiration and digitalis administered, with hot poultices to loins to restore the action of the kidneys, but without success. Death took place before six the next morning. In this case, there may have been some family predisposition to kidney disease, for a sister has since died from Bright's disease.

No. 2.—This case came under my observation in the spring of 1870 : the patient had been married in the autumn of the previous year : at about the fifth month of pregnancy, she complained of some defect of vision and symptoms of debility, that probably depended upon an affection of the kidneys. A physician was consulted, and she was advised to visit her friends in a distant town ; while there, a miscarriage occurred, and along with symptoms of debility, there was defective vision, which the physician in attendance informed me depended upon retinitis, and which he said had improved much under the use of the bi-chloride of mercury after the miscarriage. Upon her return to this city, I was consulted, and found that the urine was albuminous. The eyes were examined by Dr. Rosebrugh, of Toronto, who stated that the condition of the retina was such as is often found in patients suffering from uræmia. The albumen in urine diminished in quantity, the patient receiving iron and other tonics, while the defective vision passed away and the health appeared quite restored. She then passed from my observation, as I was absent from the city for seven months. Shortly after the holidays, in the winter of 1870-71, another miscarriage occurred, and again in autumn of 1871. I do not know the time of pregnancy when each of these took place, nor can I report respecting the condition of urine, but from a correspondence in the symptoms with those of the previous, and a subsequent pregnancy, I infer that these miscarriages had been due to the same cause. The patient afterwards consulted me in the autumn of 1872, as she was suffering from menorrhagia, with some feelings of weight and bearing down in the pelvis. The urine showed a very slight trace of albumen, the general condition improved, also the pelvic symptoms, and towards the end of 1872, she again became pregnant. The urine was examined frequently during the early months, without showing any increase of albumen, the general health being good. About the middle of April, when the patient had advanced a little over four months in pregnancy, she had a chill, apparently from taking cold; there was severe vomiting, with fever; and the urine at once showed a marked increase of albumen. The febrile symptoms passed away, but the increased albumen continued. After being confined to bed about a week, a brownish discharge took place from the vagina : the patient suffered much from headache, and the vision became so indistinct that she could not distinguish the features of friends.

Dr. Macdonald consulted with me, and we concluded that the safety of the patient required the pregnancy to cease. Means were used to dilate the os, and induce uterine action, which resulted in the delivery of a fœtus that had evidently been dead for several days. Up to this date the defective vision, headache, and other symptoms of uræmic poisoning had become almost alarming ; but the day after the pregnancy ceased the patient began to improve, and in about a fortnight the condition was so favourable that my regular visits ceased. From this date the patient enjoyed moderately good health, though she suffered at times from neuralgia : the urine was examined frequently, but only showed a slight trace of albumen. On May 14th, 1874, a chill occurred, due to sitting in a cold hall, followed by febrile symptoms and a marked increase of albumen in the urine : a few days after, pleurisy of the right side, with appearances of general œdema. One week after the commencement of febrile

attack, convulsions occurred, three times in a day, the urine became more scanty, indications of endocarditis followed, and death took place the fourth day after the convulsive attacks. During the time she had been under my care she had not told me of any illness before her marriage, but when attending in the last illness some of the friends stated that several years before she had suffered from some trouble in the kidneys, due to exposure to cold, but it did not appear that she had been under medical care for it, nor could I learn that any physician had thought her the subject of Bright's disease.

No. 3.—This case was that of a primiparous patient, aged twenty. She had not been under my care, nor had I seen her before. Called to attend in the forenoon of March 18th, 1874; she stated that her health had always been good. The labour proceeded in a natural course until near the end, when a convulsion occurred; I immediately applied the forceps, and delivered the child without difficulty about one p.m. A second convulsion occurred, when the placenta was removed. A full dose of chloral hydrate was given, and the convulsions did not return until the evening of the same day. Some urine was drawn by the catheter and found highly albuminous. Full doses of chloral hydrate were given in the night, and hot applications to excite diaphoresis. On visiting the next day, I learned she had had five convulsive attacks in the night: she was quite conscious at the time of my visit and her appearance did not show that she had passed through so severe an illness. Afterwards the urine was passed in a large quantity and in a few days ceased to give indications of albumen. At the end of the week she was as well as patients usually are at this time. Since that she has been delivered twice, but without any recurrence of convulsions.

No. 4.—I may mention here the case of a patient, aged thirty-nine, who had generally been healthy and had given birth to nine children, these pregnancies attended with no unfavourable symptoms. In her tenth pregnancy, at the end of the seventh month, the urine became bloody, and continued so until the end of the term—the patient was anæmic, but no dropsical symptoms supervened—iron and quinine given, and the labour took a natural course; soon afterwards the urine became normal. Since that, the health has been very good. She gave birth to her eleventh child in July, 1877, without any recurrence of blood in the urine. I was not able to account for its occurrence in her tenth pregnancy.

No. 5.—In 1875, April 11th, attended Mrs. E——, aged eighteen years, primipara: no illness in course of pregnancy except slight bronchial catarrh. The labour was difficult on account of slow dilatation of the os and a brow presentation: chloroform was given and the forceps used: waited an hour after the labour ended. She received a dose of chlorodyne to allay after-pains, and slept well till four the next morning. Since that, slept now and then for a few minutes.

April 12th.—She appears comfortable, has slight pain over the pubis, lochial discharge sufficient, has passed urine freely since morning. P. 100, skin cool, tongue clean. Ordered a poultice to be applied over the uterus.

Was summoned at half-past three p.m. the same day, the patient having had a fit: on reaching the house, a few minutes before four o'clock, found her conscious, but restless: the urine had passed since morning. The catheter was now used, and half a pint drawn off: this was examined and found albuminous, pulse 140. A few moments after four o'clock, a violent convulsion occurred, chloroform was given, and its influence kept up till ten p.m.: no recurrence of the spasm. Hot bricks were used to induce perspiration, a drop of croton oil given.

On inquiry, it was learned that the patient had suffered since eleven a.m. from pain in the head, though she did not complain of it as severe. She also felt nausea in the afternoon: nausea had occurred frequently during the latter months of pregnancy. After this date, the convulsions did not recur: for several days, the urine was drawn morning and evening with catheter. She suffered from tenderness of uterus, with frequent pulse, restless, and requiring chloral hydrate at night to produce sleep. On the 18th, the following note was taken:—Rested well without chloral, pulse 108, skin cool, no tenderness, urine passed voluntarily,

appetite good, and feels well. Subsequently, chills and fever occurred depending upon pelvic cellulitis, with formation of pus. The urine became normal after the first week.

No. 6.—April 16th, 1876. Mrs. R——, aged forty-three, healthy ; had been married eleven years ; this the first pregnancy. The labour was somewhat tedious and painful on account of slow dilatation of os uteri. In the last stage, a convulsion occurred, chloroform was at once given, and the delivery completed with forceps : a second fit after the delivery of placenta. The urine was drawn with catheter, and found albuminous. For the first week after the delivery, the catheter was used morning and evening, the quantity was apparently normal, and the albumen disappeared before the end of week. Chloral was given at night the first week and hot applications over the kidneys. The patient made a good recovery, and has since continued quite well.

No. 7.—Mrs. McC——, aged twenty-five ; had been married about three years, previous to which the health had not been very robust. For about two years, she was anæmic, but could not be persuaded by her mother to consult a physician. Christmas, 1874, a miscarriage occurred at the fifth month. I saw her at the time and for a day or two, but did not examine the urine, as she was averse to medical treatment. In February, 1876, another miscarriage occurred at about the same period of pregnancy, attended by another physician.

I saw her from time to time, and noticed that her appearance was generally anæmic, but was not asked to prescribe for her.

Early in 1877 I was engaged to attend her in confinement. On the evening of January 28th called to visit the patient and found that the pregnancy had advanced about seven and a half months ; she was complaining of severe uterine pains, which had been troubling her, more or less, through the afternoon. There was no dilatation of the os : and after a few doses of chlorodyne, the pains ceased. Upon inquiry, I found that for two days she had suffered from disagreeable feeling in the head, at times dizzy with some impairment of the vision, the urine was scanty and contained a large quantity of albumen. She was directed to remain in bed, and upon visiting her the next day, the symptoms had somewhat improved. The head symptoms had passed off, no pains since the night before, the urine more copious. She was advised to remain in bed, and means were taken to promote perspiration by the use of hot air. Digitalis and nitrate of potash were given, and the bowels acted upon with Bitart potas. and senna.

The urine was examined frequently in the course of the week, and always showed a considerable quantity of albumen. The general condition improved, so that for a few days I did not visit her, but sent medicine as needed.

The evening of the 9th February, I was again asked to see her, and found her suffering from severe pain in the epigastrium, with vomiting. Chlorodyne was again administered, but rejected soon afterwards. I sent also a few doses of paregoric, but they afforded no relief, as the patient vomited frequently, and was also troubled with eructations. About midnight, I was called, as she had been seized with a convulsion. Before my arrival, a second had occurred. I found that uterine action had begun, the os was somewhat dilated, and the dilatation (after the administration of chloroform) was soon completed, so that I was able to apply the forceps and deliver. The child was immature. The placenta soon came away, but as a considerable quantity of blood escaped afterwards, pressure and manipulation of the womb were made, and during this a convulsion occurred about twenty minutes after the birth. After this I remained for two hours : there was no return of the convulsions. The patient continued during the night in a comatose condition. Morph., grain one-third.

February 10th.—P. 76, resp. 18, tongue dry. The bladder was emptied by catheter of only three ounces : very dark, and contained a large quantity of albumen. Temp., 94 ; skin, moist ; patient very drowsy ; no return of convulsions. Hot applications to the loins, and nourishment to be given.

February 11th. — Morning — pulse, 108 ; resp., 16, irregular, tongue clean, moist, skin moist, temp. 96½. The urine passed in small quantity without catheter. Has vomited

several times in the night a greenish fluid. Evening, P. 96, skin cool, tongue moist.

12th.—P. 84. Passed small quantity of urine. The conjunctiva of right eye injected. Patient more conscious than since delivery.

13th.—P. 114, skin warm, resp. 18, tongue red, somewhat dry, the urine in small quantity. Last evening, had a chill for a few minutes; to-day, complains of a pain over the womb, which is hard and tender. Opiates given, discharge scanty and offensive.

14th.—P. 120, skin cool, temp. 98½, tongue furred, dry, urine more copious, clear, bowels not moved, pain continues over the uterus, much troubled with eructations and flatulence, but has not vomited, refuses milk, wine ordered.

February 15th.—P. 130, temp. normal, loch. discharge slight, tenderness of uterus continues, bowels moved, urine in good quantity, tongue moist.

February 16th.—From this date the patient's strength declined: frequent vomiting, and on the 18th the patient became comatose and died. No *post mortem*. It was impossible to get the urine for examination after February 10th.

No. 8.—Mrs. ——, aged twenty-four, said to have been quite well until the evening of July 1st, 1874, when uterine pains came on after a ride of six miles in a buggy—a slight discharge as if unwell—she had just completed the seventh month; had been nervous, easily excited, and several attacks apparently hysterical had occurred. Her eldest sister suffered after her second confinement from convulsions, probably uræmic. Attendance from eight a.m., July 2nd, till half-past one p.m., when child born apparently at the seventh month. The lochial discharge was free the first six hours, and I removed some clots from the vagina in the evening.

The next morning, (July 3rd) visited at eleven: she had been restless and slept none; in the last hour, had several attacks which were thought to be fits. I found her suffering from inability to take in a full breath: she told me she would choke: the condition appeared hysterical. Tr. Valerian and Pot. Bromid. ordered. In the afternoon, gave some paregoric and aromatic spirits of ammonia to relieve her of pain in the epigastrium. At six p.m., visited her, and learned that a fit had occurred. She spoke to me intelligently, and said she was afraid of choking. About eight, and again at ten p.m, saw her with Dr. Woolverton. Just before each visit, she had had a fit. The friends said she had been delirious, but she spoke to us intelligently. The lochial discharge had been slight during the day, bowels not moved, urine passed voluntarily in the morning and drawn with catheter in the evening at ten p.m. The quantity seemed normal—that drawn by the catheter was found to contain albumen. Two doses of chloral hydrate, fifteen grains each, ordered at an interval of three hours.

July 4th.—Visited at ten a.m. Had spent a restless night, slept none, had several nervous attacks, and had now become insensible. A homœopathic practitioner was called in.

Learned at last visit that the feet had been swollen during the pregnancy, and the face to a slight degree. I did not observe this. She made a good recovery. This case was probably one of eclampsia, though until the evening of July 3rd, I thought from the account given of the fits, and the condition of the patient at my visits, that the condition was hysterical. The labour at the seventh month was nature's method of meeting the condition.

The following case is one where in several succeeding pregnancies the uræmic condition has occurred:—

No. 9.—Mrs. A. ——, aged 37, has given birth to four children at full term, the first at the age of 25, the last in 1872. In two confinements I attended, her labours were difficult, but, so far as is known, she did not present, in any of these pregnancies, any indications of albumen in the urine. She had no illness after the birth of the child in January, 1872—lactation was continued thirteen months. In her fifth pregnancy, at about the middle of the fourth month, œdema of the face and extremities were noticed; two weeks afterwards, the 1st of July, 1873, she consulted me: there was marked œdema of the face and extremities, and albumen was found in the urine. On the 28th of the same month, a miscarriage occurred, the œdema soon passed away, and the albumen disappeared from the urine. Health regained

rapidly. In January, 1875, she gave birth to a dead fœtus at the seventh month; the fœtal movements had not been felt for two months; there was œdema of the face one month before the miscarriage, but I had no opportunity to examine the urine. She gained strength, and my attendance ceased in a week. I had no occasion to see her again professionally until the end of December, 1876. At this time, in the ninth month of pregnancy, the feet and legs were very much swollen—some œdema of eyelids. She did not complain of pain, and continued to attend to household duties, although recommended to rest as much as possible in recumbent position. The urine was loaded with albumen—the bowels costive. Ordered ʒss. pot. bitart., with a teaspoonful of pulv. glycyrrh. co. (Pruss.), every evening.

January 10th, 1877.—Did not see the patient again until to-day. Notified by a neighbour at 8 a.m., that she had been found insensible a short time previous. Last evening I received a message that she had a cramp in the stomach. As I could not visit her at once, I sent a few doses of chlorodyne, and requested them to send word if symptoms of labour appeared. On visiting her, I found that after taking the chlorodyne (one dose) she had rested well and had very little pain. She is conscious, and speaks to me of her condition, but soon lapses into sleep. Occasional pains occurred, dilating the os slightly; the tongue was wounded, as if injured by the teeth, in a fit which probably occurred about 7.30 a.m. Pulse natural, skin cool, drowsiness continuing, but without convulsions, the pains coming on at short intervals. About 11.30 a.m., Dr. Malloch arrived, and after chloroform was administered, the os was dilated with the fingers so that the medium size of Barnes' dilators could be introduced, and soon afterwards the largest size. By half-past twelve the os was dilated to admit the hand; the head was pressed against the os, but uterine action did not appear sufficient to advance it. Hunter's forceps were applied, but slipped over the head, although closely locked, the head being very small. The right hand was then introduced and the feet brought down. Delivery was completed at 1 p.m. The child at first did not breathe, but after a short time the efforts to resuscitate made by Dr. Malloch, were successful. The uterus contracted well, and no convulsion took place, except the one that probably occurred before my arrival. The child died three days after birth, having been very feeble and apparently immature. I have no notes after this date. It will be sufficient to state that the patient had not the benefit of good nursing, and for several days she suffered with symptoms of metritis, from which, however, she recovered. My attendance ceased after the 20th January. The œdema passed away rapidly, and the albumen soon disappeared from the urine. The patient gained her health quickly, menstruation occurring regularly for several months; the urine, examined at different times, showed no indications of disease. The regular monthly period took place in the middle of July, 1877, after which the usual symptoms indicative of pregnancy which proceeded in normal course. The urine was examined at different times, but no appearance of albumen, until the end of January, when the patient, who had not been feeling as well as usual for a fortnight, came to my office. The urine was found albuminous, the quantity large, specific gravity low, 1008. Iron was given, means used to promote diaphoresis, and rest enjoined. During the second week of February the symptoms indicative of uræmia more marked, the general œdema increasing, the legs and thighs very much swollen.

February 17th.—Complains of very severe headache, urine sp. gr., 1004, loaded with albumen, œdema very great, has not felt the fœtal movements for several days; vaginal examination showed the uterus low down, the os partly open;—it was dilated this afternoon with the finger. The patient was then left for several hours; summoned at 2 a.m., February 18th, as she complained very much of severe headache, with some twitching of the muscles, and the os was dilated so that the smallest size of Barnes' dilators was introduced. Gradual dilatation was then continued for an hour, when Dr. Malloch arrived and administered chloroform. I was then able to reach a foot and turn; delivery was soon completed; child had been dead some time. Urine in

evening drawn by catheter, specific gravity, 1004.

19th. Urine drawn by catheter, specific gravity, 1008; albumen less.

20th.—Urine, 1012; very little albumen.

The patient recovered health rapidly, the œdema passed away, and in a fortnight she was able to attend to household duties.

March 29th.—Urine slightly albuminous, specific gravity, 1018; health apparently good.

No. 10.—Two days before the delivery in the case above noted, I was called to attend a primipara, aged 21, who had reached the end of the eighth month of pregnancy. She had had a fall about one week before; slight œdema of eyelids noted. The labour progressed favourably, but in the last stage as the pains were severe and perineum somewhat rigid, chloroform administered for half an hour. While tying the navel string, the patient had a convulsion. The chloroform was administered for an hour, afterwards half a grain of morphine by subcut. injection. No return of convulsions. Urine drawn by catheter, and found albuminous. Six hours after labour, a large quantity of urine passed voluntarily. For a week slight traces of albumen were found in the urine; at the end of the second week the albumen disappeared, and the health has since been good.

Six of these cases had convulsions at the time of delivery; in three, the birth took place before the full time, in three, when the full period of pregnancy was completed. In two cases, convulsions occurred the day after delivery; and in two, there were no puerperal convulsions, one of these being No. 4, where blood was constantly in the urine the last two months of pregnancy; in the other, fatal uræmic convulsions occurred more than a year after the last pregnancy. All of the cases, where convulsions occurred at the full time, recovered; in one, the recovery took place under the care of my successor: possibly, the result would have been not less favourable had this patient continued under my care. In the two cases which ended fatally, the labours took place before the full time; one died within twenty-four hours of the eclamptic seizure, the other, ten days afterwards from metritis. In the fatal cases, it is somewhat probable that there had existed disease of the kidney, though in none were marked symptoms of kidney disease shown except in connection with pregnancy. The dependence of this condition upon pregnancy is certain, though in what manner pregnancy causes it is not so clear. It has been said that the pressure of the enlarging uterus on the renal veins gives rise to obstruction in the circulation of the kidney. The more frequent occurrence in the later months, and in first pregnancies where the abdominal walls are less yielding, favour this view; but it may occur in the early months of pregnancy, and it has been observed in women whose abdomens were pendulous. In both of these classes, there could be no pressure, or very little, on the renal veins. It is to be noted that although this complication is more frequent in first pregnancies, cases are reported where women have not suffered from it in the earlier, but in the later pregnancies. In case No. 9, four pregnancies passed without the complication, and then in four successive pregnancies albumen was found in the urine. In the article in Ziemssen's Cyclopædia, a case is referred to where the patient escaped in sixteen pregnancies, and suffered from it in the seventeenth. Bartels points out that the position of the kidneys and renal veins, in relation to the uterus, is such as to render them but little liable to pressure, a considerable space intervening, which is filled by the intestines. If dependent upon pressure of the enlarged womb, the left kidney, it might be expected, would be more frequently affected than the right, or affected to a greater degree, but it has been found that both kidneys are equally diseased.

Again, if pressure were the cause, it might be expected that in cases where the abdomen is distended with ovarian and other tumours, the same results would be seen. Such have not been observed, though this may be due to the number of such cases being comparatively small. The condition has been attributed to the composition of the blood in pregnancy, rich in fibrin and white blood corpuscles, poor in red corpuscles and albumen; but while the character of blood may not differ much in all

pregnancies, why should it lead to this condition in a very small number.

By some it has been attributed to a cachexia, but it attacks the most blooming and robust. In three of the cases I have noted, disease of the kidney may have existed before pregnancy, but the others, in general health, compared favourably with the majority of pregnant women.

A very interesting paper is published in the CANADIAN JOURNAL OF MEDICAL SCIENCE, January, 1877, by Dr. Martin, of Kings Co. Medical Society, N. Y., in which notes are given of a case where the condition occurred in the very early months of pregnancy, and where the kidneys rapidly reverted to a normal state after the pregnancies were terminated at early periods. The writer refers the condition to a nervous relation between the uterus and the kidneys, whereby the nutrition of the latter is changed. Certainly, there are various changes of nutrition in parts distant from the uterus dependent upon pregnancy; but here we have a change of the nutrition of the kidney unlike those elsewhere observed which resultsin the development of parenchymatous nephritis. The appearances after death are said to correspond "exactly with those which "are presented by acute renal inflammation "due to other causes, as scarlatinal nephritis "that has run a protracted course. The "kidneys are larger and heavier than normal "from thickening of the cortical substance. "The cortex is anæmic, of a pale yellowish "colour. What resemblance is there here to "the very vascular dark-coloured and usually "firm and compact kidneys that we find when "venous stasis has existed?" is asked by Bartels, in Ziemssen's Cyclopædia.

The pathological conditions, however, rapidly pass away in most cases after delivery. This is not always the case; in No. 9, the condition quickly ceased after former pregnancies: the urine, examined six weeks after the last delivery, still showed some albumen. Bartels notes the case of a young woman who, in her first confinement, Nov. 18th, 1870, had convulsions: the albumen disappeared before the end of the month. Her second pregnancy passed without difficulty. In her third pregnancy, she suffered from ague; and in the fifth month, was attacked with convulsions and delivered on the 29th October, 1873. Consciousness did not return till the 4th of November. The quantity of albumen was very large, and though much reduced in November, did not disappear till February, 1874. The treatment of this condition in pregnancy may, with profit, be discussed by the members of this Society. Bleeding may sometimes be useful. Bartels says, "The first case of eclampsia which I saw, "occurred in the person of a primipara with "renal disease, and the late Michælis, who was "then my preceptor, made me bleed her freely. "The patient, who had previously recovered "from one attack of convulsions only to fall "into another, had only one severe convulsion "after the venesection." In speaking with those who have frequently bled, I have not learned that bleeding is generally so efficacious in arresting the convulsive attacks. In none of these cases did it seem advisable to bleed; as regards six (or seven, including case No. 4), the result could not have been better. I notice that of six cases reported by Dr. James Ross, of Toronto, in the February number of the CANADIAN JOURNAL OF MEDICAL SCIENCE, only one was bled:—this patient was strong and plethoric, and had no œdema of extremities; the others appear to have been pale, with œdema of extremities. The condition of urine is not noted. All recovered. As regards the patients Nos. 1 and 7, where the termination was fatal, it is doubtful whether bleeding would have led to a different result. Bartels states that in every case where complete suppression of urine took place, the termination was fatal; and this, even though after prolonged suppression, small quantities of bloody urine passed. In these fatal cases, the suppression was almost complete, and their history does not point to a sudden congestion of the kidney such as blood-letting might relieve, but rather to a condition which was the result of changes that had probably existed for several years, greatly aggravated by each succeeding pregnancy. In these days, we are not very familiar with the results of blood-letting, but I hardly think that its most sanguine supporters would expect relief to follow from its use in

cases where the condition had existed so long. If pregnancy continues till the urine is almost suppressed, it is probable that the case will end fatally. It would seem advisable, when the symptoms of nephritis are observed, to watch the course of the pregnancy, and to anticipate a fatal suppression by inducing premature labour.

THE INFLUENCE OF THE WEATHER ON HEALTH.*

BY T. H. MONK, ESQ.

Of the Meteorological Department at Toronto.

The study of physiological meteorology, which has for its object the investigation of the connection between atmospheric conditions and the *health* of such organisms, animal and vegetable, as are subject to these conditions, is a most important one, especially as an examination of the influence of the weather shows its changes to be associated in a remarkable manner with the varying conditions of health. Sudden changes of temperature, long periods of drought, etc., will prove this to the satisfaction of the most superficial observer. Many books have been written and a number of ideas advanced, but the subject has never been attacked in a systematic or scientific manner, on account of the difficulty of obtaining sufficiently reliable data.

The intimate relations between weather and *mortality* have been conclusively shown, and by none more ably than by Mr. Buchan and Dr. Arthur Mitchell. These gentlemen compared the reports on the weather and the vital statistics of London, England, for a period of thirty years,† and the results show that *at least for one city* the mortality from nearly all diseases is much affected by the atmospheric conditions. In the discussion, the year is divided into weeks and into six periods, the characteristic features of each period respectively being, dampness and cold, cold, dryness and cold, dryness and warmth, heat, dampness and warmth.

In the damp and cold period (from the 4th week in October to the 3rd week in December), no disease shows a rapid diminution in the death rate. It is, however, to be noted that nearly all the diseases which show a relatively low mortality at this season, are either bowel complaints or diseases connected with the nervous system, the number of deaths from the latter cause, however, begin to show an increase. The period characterized by great and protracted cold (from 4th week in December to 3rd week in February) shows a larger death rate than that which occurs at any other season; being the time when the largest number of diseases show either an excessive mortality or reach the maximum for the year. The largest excess occurs among the diseases of the respiratory organs. In the dry and cold period (from 4th week in February to 2nd week in April), the diseases connected with the nervous system show the death rate which is most in excess. Bowel complaints have the minimum mortality in the dry and warm period (from 3rd week in April to 4th week in June), but begin to rise at the close. The latter half of this period is the healthiest season of all the year, particularly as regards infants. It should be noticed that at this time thunder storms begin to occur with greater frequency. In the period characterized by heat (from 5th week in June to 4th week in August), the most marked feature is the large accession to the death rate from diseases of the abdominal organs, which attain their annual maximum at this time. The last period, damp and warm (from 1st week in September to 3rd week in October), is a very healthy one. In September, no disease but scarlatina shows a rapidly increasing death rate, and this is the only disease which reaches its maximum in October.

These results, however, should by no means be taken as representing a curve, the principal features of which would be the same in all places. In fact, investigations show that in different places deaths from particular diseases exhibit very different degrees of sensitiveness to weather. There are, however, many features which will be found well marked in all investigations of this character. As the death rate among children forms such a large percentage of the whole, so it influences the formation of the general curve. Thus it will

* Being an abstract of a paper read before the Canadian Institute, April 29th, 1878.

† *Journal of Scottish Meteorological Society for July, 1875.*

be found that the largest number of deaths occur usually in the hottest portion of the year, and the minimum during the damp and warm season, being that in which the fall of rain occurs most frequently. In a comparison of the weather and mortality in Toronto for 1876,* although the data are imperfect, the death rate being for only one year, the results bear out Mr. Buchan's conclusions.

Dr. J. W. Tripe has made some valuable observations on the influence of the change of temperature on mortality; and he, with many other writers, comes to the conclusion that very hot and very cold weather induce an increase in the number of cases of disease and of deaths, and that a temperature between 55° and 65° is most beneficial to health in England. A cold wet summer always coincides with a less amount of sickness and fewer deaths than a hot dry summer. He says "the rate of deaths in weeks having a mean temperature of less than 35° was nearly 45 per cent. greater than in weeks having a temperature of 60°–65°; and in weeks having a mean temperature above 65°, the average rate of death was about 30 per cent. more than in weeks having a mean ranging between 60° and 65°." There may, perhaps, be a certain temperature for each disease, during the prevalence of which the disease is at its minimum. This appears to be the case with diarrhœa and other diseases of the same class, for the mortality from this cause, with the continuance of the mean above 65°, is at least twenty times as great as at 40°–50°. The deaths from smallpox begin to decrease as soon as the daily mean reaches 62° and has continued above that for a short time. This disease does not increase in fatality until the temperature falls somewhat below that. Whooping-cough appears to act in a similar manner; but scarlatina is exactly the reverse.

A cold wind abstracts heat from the body, and in proportion to its velocity. Some interesting effects of the exposure of the body to cold have been shown by Dr. John C. Draper, of New York,† by means of a bathing experiment, and the results are, that an exposure of the body for one hour to water of a temperature of about 74 degrees, causes increased respiration and a reduction of the heart's action. He states "There is also a tendency to congestion of various internal organs, especially of the lungs, and the establishment of a pulse-respiration-ratio similar to that of pneumonia."

A hot dry wind increases evaporation, and thus lowers the temperature of the body.

It often occurs that an increase in the number of deaths is put down to defective sanitary arrangements, when, in all probability, it is simply an effect of weather. One curious example of this has been shown. In the beginning of May, in 1867, and to the middle of June, there was a great difference between the temperature of Edinburgh and that of London, the latter place being much warmer; and it so happens that at this time attention was extensively drawn in the newspapers to the high rate of mortality in Edinburgh and the low mortality in London. This difference was generally attributed to defective sanitary arrangements in Edinburgh, and the point was largely discussed. So great a difference of temperature, however, could scarcely exist without influencing the death rate, which for the six weeks rose in Edinburgh 4 per cent. above, and fell in London 18·3 per cent below, the weekly mean for the whole period of six months.

In the relation of temperature to disease, it almost always follows that when the curve of temperature is above the mean, the curve of deaths is below. This is more especially the case in the winter months, and is most marked when the deaths which occur from diseases of the organs of respiration are separated from the rest.

It is probable, however, that the large majority of diseases will show a more intimate connection with the amount of moisture present in the atmosphere, than with any of the other meteorological elements. Dr. Parkes says "The most agreeable amount of humidity to most healthy people is when the relative humidity is between 70 and 80 per cent." (100 being complete saturation). On the amount of moisture present in the atmosphere and on the cleansing

* See Appendix to *Report of Registrar-General for Ontario, 1876.*

† *American Journal of Science and Art.* Vol. IV., page 445.

power of rain, health must, to a very large extent, depend.

Rheumatic and neuralgic diseases are curiously affected by the weather. Around the centre of every storm, there is usually an area in which rain is falling. This extends about 500 or 600 miles in advance of the storm. Outside of this, there is another belt of about 150 miles in width, called the "neuralgic belt." One proof of this is given by Dr. Weir Mitchell, of Philadelphia,* who describes the experience of Captain Catlin, U. S. A., whose leg was amputated below the knee, and who suffered from neuralgic pains in the foot and toes on the advance of a storm. It is a question whether this is due to the excess of moisture in the atmosphere or to lessened pressure. In those who come suddenly out of the increased air-pressure of diving-bells or sub-aqueous chambers, there is said to be a liability to pains in the limbs, and Dr. B. W. Richardson seems to think the experiment thus made valuable, as illustrating the influence of lessened pressure. Dr. Parkes speaks of this influence as shown by balloon ascensions, being quickened pulse and respiration. M. Paul Bert, in some experiments made in a chamber from which the air was partially exhausted, shows that this is due, not so much to lessened pressure, as to a decrease in the amount of oxygen imbibed, and proves that by increasing the amount of oxygen, the pulse resumes its normal condition.

Health is thought to depend upon the amount of ozone in the atmosphere; but as we have no data to go upon in this respect, on account of the very imperfect means for testing the amount thoroughly, no deductions of any value can be made. It is supposed that the presence of ozone is greater with high barometer, temperature, and dew-point; and less when the air is dry, or completely saturated.

The amount of sunlight must influence health, but, unfortunately, the importance of recording the number of hours of its duration appears not to have been sufficiently recognised, as but few registers are kept for that purpose.

The connection between weather and mortality will probably have been proved to the satisfaction of every one. It is not enough, however, that we should know how the weather has affected a person who is dead, we should be able to show how the *progress* of the disease is influenced by it. The returns of deaths only show the ravages caused by epidemics. They can never furnish us with such immediate notice of their origin as to enable us to take precautionary measures. This can only be done by a proper system of registration of health, in order to show the prevalence of disease. It is by no means improbable that some diseases might be prevented altogether, or at least be stopped before they reach their dangerous points, by this means, and by determining what the causes are which most influence its changes. It is well known that a large number of diseases originate through the introduction into the system of solid matter or germs which are propagated through the atmosphere. Dr. Angus Smith says "The large amount of solid matter in specimens of rain sent from Glasgow led me to connect it with the great mortality of that town." If then diseases are contracted in this matter, we should endeavour to determine what are the atmospheric conditions most favourable for the propagation of these germs, and, if there are different kinds of germs, whether they require special states of the atmosphere. There is no doubt that we shall be nearer the solution of this question when the influence of the weather on health has been definitely settled. No country is so advantageously situated as Canada for thoroughly investigating this subject. If the connection between weather and health proves to be so intimate as we are led to expect, we shall be able to foretell the changes in the health of the people, and give warnings of approaching epidemics as we now predict coming weather.

Apart from the solution of this question, a proper system of registration of health is highly important, and must prove beneficial; and it is to be hoped that medical men will co-operate with this end in view. While so much trouble is taken to obtain an accurate record of the rate of mortality, it seems curious that no step has been taken in this direction. This is properly the duty of the Government, for, as the late Prof. Henry says in his report on the Smithsonian Institute for 1865, the administration of the Government should not be limited in its operations merely to objects of instant or immediate utility, but, with a wise prevision of the future, it should withhold its assistance from no enterprise which has for its end to advance the well-being of humanity.

* *American Journal of the Medical Sciences*, April, 1877.

Translations.

From *Gazette des Hôpitaux.*

Surgeons' Duty in Case of Mutilation of Hand.

A-propos of a little operation, which I am about to do on a young patient who entered our wards three months ago with a crushed hand, I must once more insist upon the course which a surgeon ought to pursue in wounds of the hand. Whenever you shall have to treat a patient suffering from any crushing of the hand, adopt it as an absolute rule to excise nothing and to trim nothing with a knife. In those cases the surgeon ought only to think of warding off and controlling primary complications; but he should leave to nature the care of saving whatever she can save; she will preserve more than the surgeon, and will always waste less. We do not sufficiently clearly conceive how much of the lacerated, and on the first day condemned, tissues may resume their vitality and be repaired. Allow nature then to act. Wait. Later, after weeks or even months, when cicatrization shall have occurred, then only should the surgeon interfere and trim the wound in such a way as to procure for the patient the fullest use of the limb.

From *Lyon Médical.*

On the Milk Diet in Chronic Pleurisy.

BY DR. CURCI.

Before resorting to the milk diet, Dr. Curci had submitted his patient to the use of a remedy, still little employed in pleurisy, jaborandi, which he had administered in infusion in the dose of a drachm per day. The jaborandi, in this case, had been perfectly tolerated, and had produced its usual physiological effects, abundant salivation and diaphoresis; but the pleuritic effusion was not modified in the least. Digitalis, squills, and iodide of potash had given no better results; and it was only after a series of fruitless endeavours that Dr. Curci had recourse to the milk diet. Patients have some difficulty in confining themselves to this regimen, they soon acquire a disgust for milk when all other aliments are denied them. But there is no medication which has a more rapid or more certain effect upon the urinary secretion. On the fourth day of the milk diet, the dieuresis had considerably augmented, and the pleuritic effusion began to diminish, and at the end of twenty days, the cure was complete.—*Sperimentale.*

From *Le Progrès Médical.*

At the Session of the Academy of Medicine on 19th Dec., 1876, M. Laboulbène communicated an extremely interesting case of exfoliation of the stomachal and œsophageal mucous membrane following poisoning by sulphuric acid of 66°. Having been employed for a long time in a chemical factory, he immediately had recourse to an antidote, and swallowed, five minutes after the accident, a large quantity of milk. Copious emesis occurred immediately, and only then the patient, who had not previously experienced any pain, felt a very acute sensation of burning in the throat and back of the mouth. More than a week later, the patient brought up, in an attempt to vomit, a shred of membrane seven to eight centimetres long, black and pulpy, which M. Laboulbène thought must be the œsophageal mucous membrane. Some time afterwards, the patient threw up a new membrane as large as the two hands, and which had all the external characteristics of the stomachal mucous membrane. Examined under the microscope, this membrane seemed to be composed of a skin of fibrous and elastic tissue in the middle of which vessels, filled with carbonised blood, wound, but no trace of glands was found. For some time now, the patient has ingested a little milk, eggs, and a little bread dipped in gravy, but his general state is bad and inspires some apprehension.

MM. Gubler and Colin did not appear to be satisfied that the membrane presented by M. Laboulbène was the stomachal mucous membrane: 1st, because no glands had been found in it; 2nd, because one could not readily understand how the patient would be able to withstand so serious a lesion.

M. Villemin thought that the presence of conjunctive and elastic fibres was sufficient to characterise the stomachal mucous membrane: the glands are very fragile organs, and had very readily disappeared on contact with the acid.

THE CANADIAN
Journal of Medical Science,
A Monthly Journal of British and Foreign Medical Science, Criticism, and News.

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending their addresses to the corresponding editor.*

TORONTO, JUNE, 1878.

MEDICAL EDUCATION.

After eight years' experience of medical education as established by the Ontario Medical Council, the attention of the profession and of their representative body may very properly be drawn to defects in their system, as laid down and as carried out, and suggestions may appropriately be offered as to the direction and manner in which we would have it amended. The principle has readily been affirmed, that the education of our medical students should be as practical and demonstrative as possible; but to say that it ought to be so, and to make it so in point of fact, are two widely different things, which discrepancy will continue until greater facilities for practical and demonstrative examinations are provided. *Our students are too much lectured too, and too little taught*, and this will obtain just so long as the Council demands so many courses of lectures and attendance on so many lectures in each course. The want of clinical material from which to instruct students can no longer be urged as an excuse for the necessity of excessive and often wearisome didactic teaching. Our hospital, under the management of the present Board of Trustees, affords abundant opportunities for clinical study, and the policy of centralizing so many of our city medical charities will shortly greatly increase them. In addition to the wards of the Toronto General hospital, with its out-door department and department for diseases of the skin, there will be in close proximity the new Fever Hospital, the Lying-in Hospital, and the Eye and Ear Infirmary, making Toronto second to no place in Canada in facilities for demonstrative teaching and for obtaining a practical knowledge of medicine. But under the present system, students to comply with the requirements of the Council, have to put in so much time attending lectures, that they have but little left during the winter session to devote to hospital work and the dissecting room, and during the summer but few remain in the city to pursue their studies. One of the first reforms we should like to see carried is that of laying down a definite course of study which students must follow each year. What greater proof of the necessity of this can there be than the fact that at present a student is allowed to take a full course of lectures and in his first session may, according to the time-table of one of our schools, attend a lecture on medicine at 8 a.m.; on surgery at 9; on obstetrics at 10; on materia medica at 11: he then may dissect, attend the hospital at 1, return to his dissections at 2, hear a lecture on anatomy at 3, one on chemistry at 4, take practical chemistry, microscopy, or sanitary science at 5, botany at 7, and at 8, finish up with physiology. The teachers see the evil and know the remedy, but they cannot increase the time for laboratory, hospital, or dissecting-room work, because some students, to whom time and money are a greater object than the acquisition of sound knowledge, may wish to attend a full course; and thus, in the competition of schools, the lectures have to be arranged to suit them, and two lectures—one on a primary and the other on a final subject—cannot go on at once. It is high time, too, that a short summer course should be adopted. It cannot be worked successfully unless made compulsory by the Council; and there is no reason why botany, microscopy, part of materia medica, practical chemistry, and toxicology, and even medical jurisprudence and sanitary science, should not some few, or all of them, be taught in a summer session, and thus lighten the amount of lecturing in the winter. With the plenary powers with which our Council has been endowed, with so many teachers among its members, it is astonishing that some of these reforms have not been more strongly advocated during the past eight years. We hope it is not the fault of the territorial representatives, for if so, we shall more strongly than ever oppose the ridiculous proposition to increase their

numbers. Educational bodies in England, though defining the time to be spent in medical study, show a disposition to diminish the number of certified didactic courses and to increase the hospital work.

The General Medical Council of Great Britain, last summer, passed a resolution with reference to the definition and limitation of the areas of examination on the most oppressive subjects. Students are no longer to overload their memories with every fact and detail within the wide-reaching limits of *chemistry* and *materia medica*, but certain regions are to be mapped out, within which their knowledge is expected to be precise and accurate.

Dr. Farquharson, in a letter to the Editor of the *British Medical Journal* of March 2nd, referring to the materia medica examinations, says very forcibly, "So long as the teaching is compelled to continue on its present footing, so long do we perpetuate the vices of grinding in its worst form. . . . No amount of lecturing power can galvanize any interest into pharmaceutical detail, and the student most naturally postpones all attempts at acquiring any familiarity with so distasteful a subject until the coming event of the examination begins to cast its grim shadow before; and no sooner does he become a qualified man, than he restores the elasticity of his brain by casting much of its tightly-packed cargo overboard. Far be it from me, sir, to advocate any reduction of the due amount of knowledge possessed by medical men, but there comes a point when mental training as conducted by practically useless things, must cease, and all the time at command be devoted to the mastering of the actual facts and details of future professional life."

We think we have reached that point in Canada, and look to the body that has the power to apply the remedy. Do our territorial representatives take any interest in this important matter? Do our territorial associations—where they exist—ever discuss it, or any other subject pertaining to medical legislation? If so, do they instruct their representatives to take steps in the right direction? Do they ever give him any assistance at all? We think, as a rule, they do not. It is a matter for regret too, in our opinion, that many members of the Council are averse to having many teachers as examiners—placing their own desire for the position before the interests of the students, the profession, and the people.

Surely a glance at some of the questions given at the late examinations, which, to give point to our argument, we print elsewhere in this number, will at once convince them that our oft-expressed views are sound, and that teachers make by far the best examiners, and that they only should examine, but not in their own subjects of lecturing. We have been, in Ontario, far in advance in our efforts to obtain a high standard of medical education, and our friends across the line have awakened to its advantages. At Harvard University, where, under the new *regime*, no student can go from one year to another without passing an examination on certain subjects, we see from the report of President Eliot that the change has been pecuniarily and scientifically successful, and in three years a surplus of $25,000 has been accumulated and the percentage of students holding literary and scientific degrees has risen to forty-one per cent. Seven years ago, it was twenty-three per cent. The adoption last year of the three years' course in Philadelphia has been followed by a similar result.

In an able editorial in the *Ohio Medical Recorder*, the subject we have discussed is fairly put, though we are glad to say that many of the remarks can not be applied to our Canadian schools. It reads;—"It is the method itself which we consider at fault. Our present method makes—theoretically at least—*scientific* doctors: they will give, with perfect precision, the symptomatology and differential diagnosis of typhoid fever; its pathology they will discuss, with frequent references to Wagner and Rindfleisch, and they will treat it and its complications most learnedly and with scrupulous regard for the 'physiological action' of remedies. All this before graduation. We will admit that our present system, if properly conducted, is capable of producing finished doctors so far as their theories are concerned. But the young doctor may be compared to a young chemist, who, well prepared in

theory, is inexperienced in the use of apparatus. Put such a man into the laboratory and, however cautious he may be, broken bottles and beakers and retorts will evidence his lack of skill in manipulation; and with the young doctor and his patients, it will be assuredly a miracle of grace if broken constitutions and funerals do not evidence *his* lack of practical skill.

"The young chemist should be instructed in manipulation under the immediate supervision of his teacher; and the young doctor should be instructed in the practical handling of drugs and patients under the direct supervision of competent teachers in hospitals.

"Increase somewhat the number of *internes* in our public hospitals; make all appointments *only* after a competitive examination; limit the term of residency to six months, or, if necessary in order to keep up the supply of doctors, to even three months; require every candidate for a degree to have served his term in hospital, and the thing is accomplished. With such requirements, most of the poorly qualified would not enter the lists at all, the balance could not pass the competitive examination, the best men only would enter the hospitals, and graduates would have had from three to six months *experience* before entering practice. We think we would be willing to trust both ourselves and our neighbours in the hands of such graduates."—Let us then not be satisfied with having done well, but make Excelsior our motto, and one and all join in perfecting our system by encouragement and advice, and when, as in the present case, the occasion offers, by judicious criticism and even reproof. *Apropos* of the latter, we may quote the following from the London *Lancet* of February 9th, "It is to no purpose to create costly bodies for examining medical men, and another costly body for supervising these bodies—all, by the way, supported solely, and most unjustly, by the medical profession—and then to connive at unqualified practice. The penal clauses of the Medical Act are the complement of those clauses which empower the examining bodies to enact high degrees of knowledge as a condition of qualification and registration, and they should be efficient, as they are not now."

Dr. E. W. Spragge has been elected representative of Trinity College, in the Ontario Medical Council.

HOSPITAL APPOINTMENTS.

We clip the following "Annotation" from the *London Lancet* of December last, which, we think, contains some very pertinent remarks upon this subject and might, very properly receive the favourable consideration of those having the management of hospitals here and elsewhere. The writer says:—"The occurrence of a resignation by one of the surgeons of the South Devon and East Cornwall Hospital has given occasion for the discussion of a very important question—that of the desirable duration of hospital appointments. We congratulate the public of Plymouth on having both sides of this question well stated to them in newspaper letters, and a very able judgment in the columns of the *Western Daily Mercury*. Our contemporary goes in decidedly for the limited duration of appointments without the right of re-election, arguing that the tenure of hospital appointments is one of the most valuable means by which the efficiency of practitioners can be promoted, and consequently, that this advantage should be shared as largely as possible by the medical men of a hospital town. We concur fully in this view, which is also forcibly and candidly expressed by Dr. Mures and Mr. Iago to the *Mercury*. While we think that, as a rule, appointments should cease at the end of, say, ten or fifteen years, and that the rule should not be broken without good reason, we think that the rule should not be absolute. Every now and again there rises up in a town a man of conspicuous genius and merit to whom a longer tenure of office should be accorded in the interest both of the public and the profession. But, with this qualification, we are in favour of a far more extensive distribution of the privilege of hospital appointments than at present obtains, for this among other reasons, that we are persuaded that the qualities which make a good hospital physician and surgeon are far more extensively diffused than is generally believed, and are by no means confined to the two or three men in a town who happen to be the sons of retiring officers or the personal friends of members of the Hospital Committee."

The above article places this question in so reasonable a light before the public that we

have thought we could not do better than copy it *in extenso*. We have long felt that some modification of the present method of making appointments upon the professional staff of our General Hospital would be a most desirable thing, not only in the public interest, but in that of the profession generally. We look, too, upon the present crisis in the history of our General Hospital, when our enterprising Board of Trustees are making such important changes for its increased efficiency in every particular, as a fitting occasion for some changes such as will have the effect of placing the great advantages of hospital practice at the disposal of as large a number as possible of the profession in the city. It will not be questioned for a moment, we think, that there are a number of medical men here who are anxious to improve themselves in the practical pursuit of their profession, and who would be successful, but whose opportunities in general practice are so scanty as to render the path to eminence a very difficult one.

Recently, a very handsome fever wing has been added to our General Hospital, which, from its isolation from the main building, will more effectually secure the purposes of a fever ward, and supply a long-felt want to the public. We are pleased, also, to learn that arrangements have been finally completed for the transfer of the Burnside Lying-in Hospital to the General Hospital Board, and that a wing is now in process of erection where lying-in cases alone will be admitted. This, we are bound to say, is another step in the direction of increased efficiency. The treatment of diseases of the eye and ear has now become so essentially a special branch of surgical practice, that a ward devoted to the treatment of this class of cases has become an important desideratum; and we are exceedingly gratified to note that the Board are taking the necessary steps for placing such a ward at the disposal of the public.

Now all these changes in the former position and general arrangements of the hospital justify the conclusion that a re-arrangement of the medical staff upon some more satisfactory basis than now obtains has become necessary. What should be the character of these changes? The new Act relating to the management of the General Hospital provides for the appointment of assistant physicians and surgeons. In addition, we observe, by the last report of the Toronto Eye and Ear Infirmary, that the government has withdrawn its usual aid to that institution, and transferred it to the General Hospital by providing for the erection of an Infirmary in connection therewith. So that, with all the additions now arranged for, the operations of the General Hospital will assume a very much more extensive area; and these changes will not only justify, but necessitate much greater provision in the direction of medical attendance. We think, therefore, that the first step should be the appointment by the Trustees of a full staff of assistants. The objections which may have heretofore existed against this arrangement will have been fully overcome by the necessarily large increase that will occur in the number of patients that will be under treatment in the several departments of the hospital. By such an arrangement, the senior members of the staff would still retain their rank, while their assistants would acquire experience with them such as can only be acquired in the wards of a General Hospital.

We venture to express the hope that the worthy gentlemen who now constitute the Trust Board will not be influenced, in their selection of medical men, by any personal or political considerations, such as are indicated in the extract we have given. We submit that it is not just to men who are known to be earnest in the pursuit of their profession and whose success has proved to be fully equal to that of their neighbours, that they should be overlooked for others who have no higher claims than personal or political influence. Young men should not be disheartened in the struggle for position in the profession by the ever-recurring reflection that, because they have not influential family relationships, or because they do not desire to be judged by such influences, but upon their own personal merits, they must forever be kept in obscurity. Goodness knows, the struggle which they have for professional standing in a city like this is sufficiently severe without their being continually reminded by their failures in securing appointments that they have no

"*friends at court,*" as we commonly hear it expressed. From a personal acquaintance with the present Trust, we are confident in saying that they are men possessed of powers of discrimination and honesty of purpose which will keep them above any such considerations as those indicated.

There is a great deal of force in the idea that, except in very rare cases, hospital appointments should have a limited duration. It will be apparent to anyone who is at all careful to inquire into the matter, that, without a definite limit to these appointments, a large number of medical men can never hope to reach them at any age when they could make them of any value in a practical way. If we cannot get the experience that is acquired in a hospital during the first ten or twelve years of professional life, the time has passed when it will serve anything like as valuable a purpose in giving increased efficiency to our labours. And, therefore, when we have but one General Hospital, and so many men whose claims to appointments are alike strong, it is impossible that all can be gratified under the existing mode of appointing the medical staff.

But we think that, if it were so arranged that every appointment made upon the medical staff of the hospital should terminate after a certain length of time, very much greater satisfaction, both to the profession and the public, would be the result. No one will deny that there is no profession in which the most extensive and varied experience that can be obtained is so important as in that of medicine. Scarcely a day passes without the occurrence of a case in which we feel the want of the kind of experience obtained in a General Hospital only. There, if we so desire it, we get the benefit, not only of all the cases coming under our own care, but also of every case possessing any interest that is admitted into the institution. Well, it is only reasonable to suppose that in an institution where the average number of patients is in the neighbourhood of two hundred, a vast amount of information is obtained that we would absolutely fail to secure, within any reasonable limit of time, in private practice. If, then, it be admitted that extensive experience is so important a desideratum for eminent professional success, we are only speaking in the interest of the public when we claim that professional appointments should be available to as large a number of the profession as possible. This can only be accomplished by attaching a limit to the time for which they may be held. If appointments can continue during pleasure or for an indefinite period, it is manifest that only a very small proportion of the profession can hope to secure them at a time when they will be of any practical value. We are inclined to suggest, therefore, that no appointment should extend over a period longer than ten years.

To meet the suggestion made in the *Lancet*, we would propose that, on the retirement of any member of the regular staff whose services have been eminently valuable, so as to render his counsel desirable, he should be appointed upon the consulting staff of the hospital. We are free to admit that there are men amongst us whose labours upon the regular staff have been so eminently successful, in every way, as to render their counsel, in difficult cases, of the first importance. Hence, to adopt any measure which would result in the severing of their connection with the hospital entirely, would be a great mistake. But if they are willing that their services should be retained as consulting physicians or surgeons, every end would be fully met. We see no valid reason for limiting the number appointed upon the consulting staff; and we would, therefore, favour the continuance, in this capacity, of every man of prominence who has served a term upon the regular staff.

In making the suggestions now offered, we trust it will be distinctly understood that no selfish motives have prompted us. We are desirous that hospital advantages may be placed at the disposal of as large a number of the profession as possible. We are confident that such a modification of the present arrangement of our General Hospital as we have now indicated would be greatly in the interests of the profession, by more eminently qualifying them for the grave responsibility of their calling, and thus rendering their services, in every way, more acceptable and valuable to the general public.

LACTOPEPTINE.

As will be seen by the advertisement in another column, the New York Pharmacal Association have purchased all the rights of Messrs. Reed and Carnrick in the very valuable compound of pepsin, pancreatine, ptyalin, lactic acid, hydrochloric acid, and sugar of milk sold under the above name. Samples of this preparation have been very widely distributed amongst physicians throughout the country, and we doubt not their experience of its use has been, like our own, uniformly favourable. We can most confidently recommend it in all forms of atonic dyspepsia.

OBITUARY.—It is our painful duty to announce the sudden death of Dr. Henry, sr., of Toronto, at the age of 70. The deceased gentleman was well known in Orangeville and surrounding country, having resided at Sand Hill for nearly forty-five years, during which time, and up to the present, he was actively engaged in his professional duties. About four years ago he removed to Toronto, where he died on Saturday morning, 4th inst. Not feeling well he arose and took a large dose of morphine to quiet his nerves and procure sleep, but in a very few minutes poisonous symptoms became manifest and almost immediately he sank into a deep sleep from which he never awoke, notwithstanding the united efforts of the medical gentlemen in attendance. The deceased was a member of the Royal College of Physicians and Surgeons, Ireland, receiving his diploma in 1827; after which he spent three years in the University of Edinburgh and took the degree of M.D. in 1831. He was in the navy for a short time as Assistant Surgeon, but sold out and came to Canada in 1855, where he spent the greater part of his life in the active prosecution of his professional duties. His death, professionally and otherwise, is a loss not easily filled, for medical men of his ripe experience and undoubted skill are few in number. He was a kind father and a warm friend, and his loss will be sadly felt by many patients and friends all over the country.

The Ontario Medical Council meets at two o'clock p.m. Tuesday, 11th June, 1878, City Council Chamber, City Hall, Toronto.

JOURNALISTIC.—*The Obstetrical Gazette*, a monthly journal devoted to Obstetrics and Diseases of Women and Children, Cincinnati, Ohio, edited by Edward B. Stevens, A.M., M.D., is a new aspirant for journalistic fame. The first number is to appear the first of July, 1878.

Our thanks are due to Dr. Pyne, the Registrar, for the readiness and courtesy with which he has, in spite of his arduous duties, given us information in Council matters.

CANADIANS IN ENGLAND.—H. L. Reddy, M.D., has been admitted licentiate of the Royal College of Physicians, London: J. C. Cameron, M.D., McGill, has obtained the license in Medicine and Midwifery of the Royal College of Physicians of Ireland.

APOMORPHIA.—The amorphous, which is a greyish powder, should never be used, as it varies greatly in strength; the most reliable salt is the muriate *in crystals*—dose, one-tenth to one-fourth of a grain as an emetic.

M. Pierre Picard will succeed Claude Bernard in the Chair of Physiology at the College of France. M. Leon Voillemier, the distinguished French surgeon, died recently.

We take the following statement from the remarkable speech of M. Leon Lefort at the *Académie de Médecine* lately on the subject of the dressing of wounds: "Taking amputation of the thigh as an example, we find that (1) with the ordinary dressings Billroth had a mortality of 82 per cent., Syme, 44, Spence 31; (2) with the cotton-wool dressing, Guerin 50, Ollier 60; (3) with intermediate reunion, Azam's mortality was 30 per cent.; with Lister's dressing, Lister's mortality was 26 per cent., Bardeleben's 62, and Volkmann's 30; (4) in the absence of all dressing, Rose's mortality was 28 per cent., and Leon Lefort's own, 21 per cent., he observing the most rigorous cleanliness alone.

BOOK NOTICE.

Is Modern Education Exerting an Evil Influence upon the Eyesight of Children. By A. W. Calhoun, M.D., Atlanta, Georgia.

Miscellaneous.

Dr. Nathan Bozeman has been appointed to the staff of the Women's Hospital, New York.

Mr. Edward Nettleship has been elected Ophthalmic Surgeon to St. Thomas's Hospital, in place of Mr. Liebreich, who has resigned.

J. Rirdon Bennett, M.D., F.R.S, has been re elected President of the Royal College of Physicians for the ensuing year.

Dr. Trenholme has resigned the Chair of Midwifery and Diseases of Women and Children in the Medical Faculty of Bishop's College. Dr. Blackader has been appointed Lecturer on Physical Diagnosis in Bishop's College.

Dr. Francis Gurney Smith, Professor of the Institutes of Medicine in the University of Pennsylvania, died last month. He was well known as the editor of the American editions of Carpenter's and Marshall's Works on Physiology.

University of Toronto.—We are informed that the Senate of Toronto University will accept the matriculation of the examiners for the Ontario Medical Council until October 18, 1878.

University of Toronto.—The election of members of the Senate to replace those retiring this year resulted in the choice of J. M. Gibson, M.A., LL.B., of Hamilton; J. H. Richardson, M.D., of Toronto; and James Bethune, LL.B., Q.C., of Toronto. S. Woods, M.A., of Kingston, was elected to replace W. R. Meredith, M.A., of London, who resigned his seat this year.

Mistletoe as an Oxytocic and for Uterine Hæmorrhage.—Dr. W. H. Long, Surgeon U. S. Marine Hospital Service, Louisville, Ky., (Louisville *Medical News*, March 16, '78), states that he has used this plant as a substitute for ergot for the past ten years. The infusion, decoction or fluid extract of the leaves may be employed.

Toronto School of Medicine Sholarships.—1st year, $50, 1. James H. Duncan, 2. W. E. Hamill, 3. John Ferguson; 2nd year, $50, 1. W. J. Cross, 2. Matthew Wallace, 3. David Gould; 3rd year, $50, 1. James Adair, 2. Franklin Burt; 4th year, instruments, value $50, 1. John Herbert Gardiner, 2. George Kennedy, 3. W. F. G. Grant.

University of Toronto.—Annual Examinations in the Faculty of Medicine:—Gold medal, Griffin; silver medal, 1. Meek, 2. Bonnar, 3. Kennedy, 4. Gardiner. Starr Gold medal, Bonnar; Starr Silver, 1. Meek, 2. Griffin. *Scholarships*, 3rd year, Burt, 2nd year, Cross, 1st year, Duncan and Hamill, *æq.* Following are those who passed the final examination (for M.B.) in medicine:—J. Adair, Algie, Ashly, Bonnar, A. Baines, W. H. Bently, W. H. Burton, C. K. Clarke, Cornell, Dafoe, DeLom, F. J. Duggan, Doupe, Gardiner, S. H. Glasgow, Griffin, Groves, Hartman, D. Jamieson, J. R. Jones, Kennedy, J. E. Langstaff, McCarthy, McGrath, Meek, McKay, A. S. Ogg, J. Pomeroy, R. A. Pyne, Rankin, W. T. Robson, A. Robinson, J. Ross, Stanley, Stalker, A. Wilson, H. D. Wilson, J. F. Vanderburg.

University of Trinity College.—M.D.—R. J. McKinnon, D. A. Stewart, A. H. Miller, F. M. Strangeways, D. W. Mitchell, Stewart McArton. M.B.—Harry Meek, J. D. Bonnar, W. A. Dafoe, J. Hartman, W. McKay, W. Cornell, W. H. Doupe, J. W. Groves, David Wilson, J. McGrath, J. Henderson, Chas. Sheard, U. M. Stanley, James Rankin, J. Algie, J. Forbes, J. Dunfield, D. Brook, S. A. Cornell, A. Wilson, F. H. Ashby, A. McKelvey, H. A. DeLom, D. L. McCort, A. Baines, J. E. Morrison, M. Stalker, Alexander Davidson. *Honour List.*—University gold medal, Harry Meek; silver do., J. D. Bonnar; certificate of honour, W. A. Dafoe.

On the Treatment of Infantile Impetiginous Eczema.—Dr. Georges Lepage has observed in M. Jules Simon's wards the good results obtained in children suffering from eczema by the method recommended by Besnier (*Bulletin de Thérapeutique*, vol. lxxxviii. p. 49), which

consists in enveloping the parts attacked with India-rubber cloth. The conclusions of his paper are as follows: 1. Impetiginous eczema is a cause of debility in the child; it therefore requires prompt and active treatment. 2. Treatment by swathing is superior to all other methods. 3. The general treatment is a necessary supplement to the swathing. 4. The practitioner need not dread repercussive phenomena if the therapeutic treatment be carefully conducted.—*London Med. Record.*

Vaccination with Horse Lymph.—Several cases of vaccination are reported in which humanized horse-lymph was used. It was almost always successful, causing beautiful pustules with less inflammatory reaction than with cow-virus. The eruption and maturation of the pustules were delayed, the former one-and-a-half to two, and the latter three to five, days.

Mote from the Eye.—Take a horse-hair and double it, leaving a loop. If the mote can be seen lay the loop over it, close the eye, and the mote will come out as the hair is withdrawn. If it cannot be seen, raise the lid of the eye as far as possible, and place the loop in it as far as you can, close the eye and roll the ball a few times, then draw out the hair. The substance which caused so much pain will be sure to come with it.

At a meeting of the *Société des Sciences Médicales de Lyon,* M. Bard, *interne des hôpitaux,* read a note of *obliteration of the brachial in a fracture of the lower extremity of the humerus,* without external wound. The internal tunic of the artery alone was injured. Gangrene of the limb and death followed. M. Poncet supplemented M. Bard's case by another, observed by himself four years ago in *Saint-Sacerdos* ward. A heavily-laden waggon passed over the thigh, compound fracture of the femur resulted, some days after, gangrene of the limb, and the death of the patient occurred. At the autopsy, the femoral artery presented a rupture of the internal tunic. The other coats were uninjured. The only difference to be observed between these two cases is, that in M. Bard's patient no wound existed.

Acetonæmia in Diabetic Coma.—The following are the results arrived at by Dr. Balthazar Foster of Birmingham, in relation to this subject.

1. That acetone has been found in the breath, urine, blood, etc., of patients who have died from diabetic coma.

2. That grape sugar may be converted in the stomach by alcoholic and acetic fermentations into acetone.

3. That the changes in the blood observed after death from diabetic coma can be artificially produced by the addition of acetone.

4. That the administration of acetone in large quantities to animals produces similar symptoms to those observed in diabetic coma.

Treatment of Spermatorrhœa.—Dr. Ultzman of Vienna, recommends ext. secalis cornut. mvij, and gr. xlv. of potass. bromid., daily, for cases of seminal emissions, but he places most reliance on local applications. He advocates the daily passage of a metal sound (7 or 8), and he leaves it in the urethra twenty to thirty minutes. Dr. U. finds that the patient is cured by this treatment in from 6 to 8 weeks. In very sensitive persons he uses urethral suppositories, (made of morphia gr. 1-3, tannin gr. vii., butyr de cacoa, gr. xxx). He introduces the suppository into the prostatic portion of the urethra by means of Dittel's catheter, every other day. Later on he uses suppositories of argent. nit. gr. 1-5, butyr de cacoa gr. xxx. In true spermatorrhœa he has found electricity of much service. He applies one pole within the rectum, and the other to the perineum just behind the scrotum.

Dr. Rezek of Teplitz, says the best treatment for spermatorrhœa and seminal emissions is regular sexual intercourse.—*Schmidt's Jahrbücher,* No. 3, 1877.—*Canada Med. and Surg. Journal.*

Brain in Relation to Sex.—At a late meeting of the *Société Médicale des Hôpitaux,* M. Luys asserted that the brain of man and that of woman presented certian differences which enabled them to be distinguished from one another. In man, the paracentral lobe makes a projection from the curved line of the

brain surface, whilst in woman (except in special instances to be referred to subsequently), the paracentral lobe makes no projection, but preserves the equal and gentle curve which the brain surface presents in this region. M. Luys presented drawings of, and, the brains of men and women, hardened by his process, in which it was easy to observe these differences. . . . Lastly, M. Luys showed several drawings representing sections of the brains of insane women who during their life had been in a continual state of agitation; in these brains, it was easy to recognise a turges, cence, and sometimes even a veritable gibbosity of the paracentral lobes.—(*Gaz. des Hôp.*)

There were Giants in those Days.—The Committee of the French Academy recalled an account of a quite extraordinary fecundity that was published by M. Hermann in his "Travaux Statistiques de la Russie." Fedor Vassilet, peasant of the Government of Moscow, and who, in 1872, was aged 75 years, had had, by two wives, 87 children. His first wife in 27 accouchments, had sixteen times given birth to twins, seven times to triplets, and four times to quadruplets; never a single child. The second was similarly fruitful, and bore 18 children in eight accouchments. In 1872, 83 of the 87 survived. This fact is stated to be nevertheless authentic. M. Khanikoff, correspondent of the Imperial Academy of St. Petersburg, was consulted a few years ago, as to the means to pursue in order to obtain a verification of the phenomenon. He replied that all investigation was superfluous; that the family in question still existed in Moscow and that it had been the object of favours from the Government.

Registration of Disease.—The Boston City Board of Health has lately issued a circular which will be interesting to our readers in relation to a matter much discussed now, and which will probably be the subject of legislation. We give the following extract:

"Whereas diphtheria is a disease contagious and dangerous to the public health, and whereas it now exists in the city of Boston; therefore the Board of Health issues the following notice: That on and after January 1st, 1878, the following provisions of Chapter 26 of the General Statutes will be strictly enforced.

"'Sect. 47. When a householder knows that a person within his family is taken sick of.. any...disease dangerous to the public health, he shall immediately give notice thereof to the ...board of health of the town in which he dwells If he refuse or neglect to give such notice, he shall forfeit a sum not exceeding one hundred dollars.

"'Sect. 48. When a physician knows that any person whom he is called to visit is infected with...any disease dangerous to the public health he shall immediately give notice thereof to the ...board of health of the town: and if he refuses or neglects to give such notice, he shall forfeit for each offence a sum not less than fifty nor more than one hundred dollars.'"

Note on the Hardening and Preservation of Pathological Specimens.—After many experiments with different fluids, I have as yet found no better fluid for the purpose of harden ing and preserving museum specimens than a strong alcoholic solution of carbolic acid and creasote. The carbolic acid should be dissolved in a little spirit, and the creasote then added: a clear solution results, which is not altered by the subsequent addition of the methylated spirit; and the following proportions are recommended for the purpose: Creasote, 1 part; carbolic acid, 1 part; methylated spirit, 38 parts. The hardening of lung-tissue, with which I am chiefly concerned, is not easily effected by alcohol alone, and mucous tissue and fluid loses a large quantity of water before hardening; but, with the above fluid, the larynx is very rapidly hardened, and tubercle, which completely alters its macroscopical appearance in alcohol, is better shown after immersion in this fluid than in any other that I have yet tried; the colouring matter of the blood is but little altered by it, and may be thus preserved for some time. For putting up specimens, glasses, with a glass cover ground at the edges to fit close, are well suited. These are often glued together with shoemaker's glue; but as there is much risk from the heating of this substance, and as the glue is soluble in spirit, I have altogether discarded this method and use diamond cement. This is solution of gelatin in acetic acid, which is readily softened by the application of hot water, is easily applied by a brush, and is insoluble in spirit.—Reginald E. Thompson, M.D.

Lymph Scrotum and the Filaria Sanguinis Hominis.—At a late meeting of the Pathological Society of London Mr. G. C. Coles exhibited a specimen of lymph scrotum which consists in a varicose condition of the scrotal lymphatics, followed by inflammation of the skin and exudation of a clear and subsequently milky fluid. He pointed out the relation between this affection and elephantiasis on the one hand, and chyluria on the other. Lewis discovered the existence of filariæ in cases of chyluria, and the parasites were subsequently shown to exist in cases of lymph scrotum also. Dr. Bancroft, in Australia, last year discovered the mature worm (called by Cobbold *Filaria Bancrofti*), of which the Filaria Sanguinis Hominis is the larval form; and it appears from Dr. Manson's (of Amoy) researches that the mosquito serves as an intermediary host between these two. He found that, taken into the stomach of the mosquito (he had counted as many as 120 in one mosquito) the filaria casts its skin and assumes a sausage shape, the female depositing her eggs on the surface of the water and dying there. The filariæ are introduced into the human organism by the drinking water, and produce varicosity of the lymphatics by mechanical obstruction.

Dr. Hughlings Jackson has been the recipient of the first award of the Marshall Hall Memorial Prize of the Royal Medical and Chirurgical Society for his investigations into the Pathology of the Nervous System. The Fothergillian Gold Medal of the Medical Society of London has been awarded to Dr. J. Milner Fothergill for his essay on the Physiological Antagonism of Certain Poisons. The silver medal of the same society has been awarded to Dr. J. Althaus for the best paper of the session; the subject of the paper being the Lesions of the Anterior Cornua of the Grey Matter of the Spinal Cord. This paper appears in the April number of the American Journal of the Medical Sciences. Dr. Cohnheim, Professor of Pathological Anatomy in Breslau, has accepted an invitation to the same chair in the University of Leipsic, and is succeeded by Dr. Ponfick, Professor in Gottingen. The Sixth International Medical Congress will be held in Amsterdam in September, 1879. We are informed that Mr. Jonathan Hutchinson is likely to succeed Mr. Erasmus Wilson in the Professorship of Dermatology at the Royal College of Surgeons, England. Mr. Richard Liebreich has resigned the post of Ophthalmic Surgeon to St. Thomas's Hospital.

Therapeutics of Iron.—There are two different states found in women where iron is either totally contra-indicated or to be given with great caution. The first is a condition of amenorrhœa in florid, plethoric persons. The other is the opposite condition of menorrhagia in certain females. There are cases of menorrhagia associated with pallor and debility, where the usual compound of iron and extract of ergot is not so useful as a non-chalybeate treatment. In these cases it is not any imperfection in the process of blood manufacture which is to be remedied, for the blood is made rapidly and quickly, only to be lost at each menstrual period. It is here desirable rather to limit the rapidity of the blood formation, so that when the vascular turgescence of the menstrual period comes, it will not find the blood vessels too distended with blood. This will lead to diminished catamenial loss, and so the blood waste will be economised. According to the experience of Dr. Brown Séquard and Dr. Hughlings Jackson, iron does not suit epileptics. It increases the tendency to fits. It may improve the general condition, but it aggravates the epilepsy.—*Dublin Medical Press.*

College of Physicians and Surgeons of Ontario.—List of the names of persons who obtained the License of the college at the Spring Examinations in 1878:—James Adair, James Algie, Thos. H. Ashby, Allan W. Baines, Henry Bennett, William H. Bentley, J. D. Bonner, Franklin Burt, John D. Cameron, Arthur D. Campbell, Charles Kirk Clarke, George Clinton, Sandford A. Cornell, Warren Cornell, Hugh A. Craig, William A. Dafoe, Henry Anthony De Lom, William A. Doupe, Joseph Fredk. Duggan, John Dunfield, Henry Alfred Evans, D. W. Faulkner, John Munro Forbes, John B. Fraser, Sinclair Holden Glasgow, Wm. Frank G. Grant, John F. Gilmour,

John H. Gardiner, James Wilson Grooes, Edw. Anson Graveley, Fred. S. Greenwood, K. D. Graham, Jacob Hartman, Francis Melville Howe, James Bruce Howell, Theod. St. Val. Hutchinson, James Robert Jones, David Jameson, George Allan Kennedy, William B. Kennedy, P. E. Kidd, George W. Kirke, Onesine Langlois, John Elliott Langstaff, William Lehman, James Henry Lowe, Denis P. Lynch, Fred. William Lewis, James Macarthur, Harry Meek, James Morrison, Thomas Millman, Thos. W. Mills, Dan. C. McCarthy, Milton McCrimmon, Thos. John McCort, Geo. R. McDonagh, John McGrath, William McKay, Alexander McKelvey, James McLellan, J. W. Neilson, Alexander Ogg, John R. Pomeroy, Robert Allen Pyne, J. P. Rankin, George Riddall, James W. Ross, William Telfer Robson, Alexander Robinson, Robert Reddick, Charles Shupe, Charles Sheard, Malcolm Stalker, Uriah M. Stanley, Daniel Fisher Smith, James Vanderbug, Archibald Wilson, David Henry Wilson.

Novel Method of Advertising Specialties.—"The Eye" and "The Ear" were toasts at the banquet of the Kentucky State Medical Society a few weeks since, and specialists were on hand to respond. In referring to this vulgar proceeding, the *Richmond and Louisville Journal* advises that the advertising field should be enlarged, and suggests as some of the additional toasts "The Chancre," "The Urinary Bladder," and "The Rectum."

Treatment of Urethral Neuropathy.—Dr. Bron, (*Jour. des Sci. Méd.*, 1878, p. 95) thus designates those vague symptoms complained of by patients who have suffered from gonorrhœa after all discharge has ceased. These are lassitude in the loins, weight in the hypogastric region, painful and strange sensations in the urethra, extension of the malaise to the digestive organs, etc. Of course all these symtoms are not found associated in a single individual, but they are found isolated or several together. Instead of the varied medication heretofore recommended in these cases, Dr. Bron urges the simple employment of the sound as being quite sufficient. A soft bougie of small size is introduced every second day and left in place for a few moments. At each sitting the size of the instrument is slightly increased. At the end of a very short series of sittings the most rebellious neuropathies sometimes disappear, as if by magic, after having resisted the most varied medication previously.

Relation of Erythema Nodosum to Tuberculosis.—Oehme (according to *Centralblatt fiir Chirurgie*, No. 43, 1877, 680) has observed that, though in strong and healthy individuals erythema nodosum leaves no unfavourable sequelæ, for joint affections and diseases of the endocardium do not occur as a rule, yet in persons of bad constitution or of unfavourable hereditary tendencies the advent of erythema of this character is ominous. In such cases general tuberculosis is liable to occur very soon, according to his observations; and he mentions one case where a child apparently recovered from erythema nodosum died a few weeks later of tubercular meningitis. He therefore believes the affection to be a general disease, of which the eruption is merely an early symptom.

Births, Marriages, and Deaths.

BIRTHS.

At Forest, on Sunday, the 22nd of April, the wife of Dr. Alex. Scott, M.B., of a son.

At Simcoe, on Sunday, the 12th May, the wife of James Hayes, M.D., of a son.

At Phœnix Park, Balaclava, Jamaica, on Sunday, 31st of March, the wife of Dr. J. J. Hillary, P.M.O., of a son.

MARRIAGES.

On Tuesday, the 23rd April, at the residence of the bride's father, Brant Avenue, Brantford, by the Rev. W. Wellington Carson, Levi Secord, M.D., of Bright, Ont., to Emily C., second daughter of Wesley Howell, Esq.

DEATHS.

At 37 Walton Street, Toronto, on the 4th of May, Thomas Henry, sr., M.D., aged 70 years.

On the 8th of May, at the residence of her son-in-law, Wm. J. Cameron, of H.M. Customs, corner of Haydon and St. George Streets, Ann, beloved wife of Mr. John Rutherford, and mother of Dr. Rutherford, Aurora, and Dr. Rutherford, of Chatham, Ont., aged 76 years and three months.

At Paris, on the 31st of March, Dr. Séverin Galezowski, aged 78, formerly a professor in the Polish University of Wilna.

Felix Robaud, aged 57, one of the original founders of *La France Médicale.*

Professor Ernst H. Weber, the distinguished physiologist, died in Leipzig, January 26th, aged 73.

Dr. A. H. Cenas, Emeritus Professor of Obstetrics in University of Louisiana, died January 10th.

THE

Canadian Journal of Medical Science.

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U. OGDEN, M.D., *EDITOR.*

R. ZIMMERMAN, M.D., L.R.C.P., London *171 Church Street Toronto, Corresponding Editor.*

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TORONTO. JULY, 1878.

Selections: Medicine.

PATHOLOGICAL SOCIETY OF LONDON.

Dr. Dickinson showed a specimen of Ulceration of the Intestines in connection with Granular Kidney. He said that two years ago, in his Croonian Lectures, he had related two cases of granular kidney in young subjects, both of whom died from peritonitis due to perforation (or nearly complete perforation) of the bowel from ulceration. This ulceration resembled that of dysentery, except that it occurred in the ileum, and not in the colon. Dr. Greenhow had since mentioned to him a third case of ileal ulceration and purulent peritonitis in a girl aged twenty, the subject of granular kidney. The present was the fourth case with which he was acquainted. The patient was a young man twenty years of age, who had marked symptoms of chronic Bright's disease, copious pale albuminous urine, very little dropsy, albuminuric retinitis, extreme hardness of the pulse, and hypertrophy of the heart. He had occasional hæmorrhage from the bowel and nose, as well as the retinal hæmorrhages. The supervention of peritonitis (from which he sank) made Dr. Dickinson think the case to be parallel to the other three. The kidneys were markedly granular and fibroid, and an interesting fact was that the renal lesion was the direct outcome of an attack of scarlet fever fourteen years before. At that time, when he was six years old, he had scarlatinal dropsy, and ever since his health had been bad. The ileum was ulcerated, and in two places perforated; the peritoneal sac containing purulent fluid. There was no tubercle, and no evidence of typhoid ulceration. As to the way in which the ulceration arose in these cases Dr. Dickinson was unable to speak with certainty; he believed it to be an actual result of the granular kidney with which it was associated, and it might be due to hæmorrhage into the wall of the gut. The President remarked upon the youth of all the patients, and asked whether any explanation could be given of this. Dr. Dickinson said that in the present case the renal disease was clearly due to scarlet fever, and in another it was due to calculous affection. The President asked, further, what proof was there of the absence of typhoid fever? Was the temperature raised? It was remarkable that in not one of the cases was the patient advanced in life. Dr. Dickinson said there was no history of typhoid fever in any of the cases, and two of them were under observation for a long time. There was no noticeable rise of temperature, and the chronicity of the disease put any acute fever out of the question.

Dr. Alfred Carpenter on Alcohol.—Dr. Alfred Carpenter's medical deliverance on Alcohol has not unnaturally excited attention beyond the bounds of the Medical Society. The question is a very large one, with commercial, fiscal, dietetic, physiological relations, besides pathological ones. As an illustration of the commercial aspect of the use and non-use of alcohol, we may say that the Temperance and General Provident Society in thirty-eight years has accumulated a fund of more than two and a quarter millions sterling as the savings and property of surviving members. But the sanitary and medical bearings of alcohol alone

explain the interest with which the public regard the subject when treated in a way they can partly comprehend. Dr. Alfred Carpenter showed a decided aversion from those easy assumptions which have been so current with teetotalers. He withheld his assent from the view that there is no utilisation of alcohol in its passage through the body. He would not consent to abolish it as a mere luxury, nor would he assume that because a large dose of alcohol is injurious, a small one would likewise be so. He reviewed the facts ascertained as to its action on the blood, reducing the power of the corpuscles to absorb oxygen, abstracting water from the blood-discs and making them adhere, increasing the coagulability of the fibrinous or plastic part of the blood, and its tendency to be deposited in vessels or organs—effects surely forthcoming when the proportion of alcohol to water in the blood exceeds one part in five hundred, and leading to those morbid appearances with which pathologists are familiar. He maintained that the alcoholic drinks commonly used, and taken, as they commonly are, undiluted, and very often unmixed with food, "must be hurtful." Surprise is expressed that such discoveries have not been made before. This feeling is natural, and we only mean here to say one or two words in reply to it.

The first is this, that physicians are now concerned much about the origin of refined processes of degeneration, the postponement of which is one of the great ends of medicine, and one of the great secrets of longevity. Not content with curing actual and gross disease, they aim at averting any departure from the proper structure of tissues and organs, or the enjoyment of perfect functional health. They want all men to live longer. In order to do this, the aim must be to prevent disease as well as to cure it. In this way they have come to consider the action of alcohol, and, without going into controversial details, certainly find it to be a most potent factor in producing degenerative changes in tissues.

Our second remark is this: that while the case is made out against any but the slightest use of alcohol, and this with meals, there is a great deal yet to be done by physicians in elucidating the physiological and pathological action of the temperate use. Some recent statistics show, or seem to show, that, according to the experience of the Temperance and General Provident Society, the abstainers are more liable to death by lung disease, by heart disease, by zymotic disease, and by casualties; while moderate drinkers are more liable to death by nervous disease, by liver and kidney disease, and by dropsy. We can well believe, as the same statistics show, that, out of a thousand insurants of the two classes respectively, abstainers and carefully sifted moderate drinkers, four of the later died to three of the abstainers. We consider that, if anything is made out, it is that any considerable quantity of alcohol, in ordinary constitutions, leads infallibly to mischief. But we want this subject treated carefully, in a truly scientific spirit, as if there were no moral or commercial interests attached to it, feeling assured that the more dispassionate the medical discussion of it the more will it help the cause of health and morals.

BRAIN-FEEDING.—The press of work and the strain of worry are so great in these days of hot haste and breathless enterprise, that, except under conditions rarely established and maintained, the power of self-nourishment and repair in the mind-organ is not sufficiently strong to keep it in health. It follows that it must be fed and nourished by special design. An adequate supply of oxygen is the preliminary requirement. Then comes the question of food: and, whatever else may feed the brain, workers with this organ should be assured that alcohol will not sustain it. Alcoholisation and oxygenation are directly antagonistic processes; and even if alcohol be food for the brain, the organ cannot feed when the nutrient fluid circulating in its vessels is disabled from the task of conveying oxygen, which happens whenever spirit is present in more than very moderate proportions in the blood. The relief afforded by alcohol from the sense of depression produced by a lack of oxygen, is, therefore, illusory. It is procured by over-stimulating an organ which is both exhausted and impaired. —*London Lancet.*

A HELP TO DIAGNOSIS IN CASES OF ABDOMINAL OBSTRUCTION. [BRYANT]

—	ACUTE— Obstruction or Strangulation.	CHRONIC OBSTRUCTION— From Disease of Large Intestine.	CHRONIC OBSTRUCTION— From Disease of Small Intestine.	ACUTE OR CHRONIC— Intussusception.
Previous condition of subject.	In good health	Ailing for some time with abdominal symptoms.	Ailing, with previous attacks of incomplete obstruction.	In good health.
Mode of attack	Very sudden and acute.	Symptoms gradually increasing in severity, or acute grafted upon old,	Paroxysms of colicky pain, upon old symptoms.	Sudden onset, and increasing when acute, subsiding when chronic.
Early symptoms : Pain	*Abdominal pain*—fixed, central, and paroxysmal.	*Pain* diffused and increasing with distension.	*Pain*—paroxysmal, with intervals of ease and hypogastric.	*Pain*—fixed, and often relieved by pressure.
Vomiting	*Vomiting* rapidly becoming fæcal.	Intermittent and fæcal towards the last.	Occasional during attack of pain.	Rapidly becoming fæcal in acute cases, absent or intermittent in chronic.
Collapse	*Collapse* very marked.	Absent till the end.	Absent till late.	Very marked in acute cases, not so in chronic.
Constipation.....	Absolute constipation, and inability to pass flatus.	Gradually increasing in severity.	Attacks of constipation, alternating with natural relief.	Occasionally present, but as a rule "dysenteric" symptoms, straining, tenesmus, muco-sanguineous stools, or hæmorrhage.
Abdominal distension,	Rapid and severe, central and hypogastric.	Gradually increasing, lumbar and epigastric.	Never great, increased during attack.	Rarely severe,
Manipular indications,	Tympanitic; distended coils at times to be felt.	A fixed swelling at times to be felt in either iliac fossa.	A doughy condition of bowel, becoming knotty during attack.	Distinct tumour often to be felt, its shape varying during attack.
Visible indications	Abdomen tense in umbilical and hypogastric regions, with visibly distended coils.	Abdomen broadly distended ; coils of intestine visible.	Coils of intestine very visible.	Nothing marked to be seen.
Peristalsis	Rarely visible.	Marked.	Very marked.	Not visible.
Urine	Scanty or suppressed.	Natural in quantity.	Natural.	Natural.
Rectal examination ...	Lower bowel probably quite empty.	Stricture of bowel may be felt in rectum or in sigmoid flexure by manual examination.	Nothing abnormal.	Rectum may contain mucus or invaginated bowel.

—*London Lancet.*

ACUTE BRIGHT'S DISEASE CURED BY JABORANDI.—* * * * And now you will, of course, want to know what our treatment has been. how we have brought it about that in the course of two weeks after her admission the patient is entirely recovered. The general dropsy, albumen in her urine, and dyspnoea all gone together. I ascribe all my success in the treatment of this case to the free use of jaborandi. Five days after the jaborandi treatment was begun, the whole face of the case was changed. The dose I ordered was one drachm of the fluide xtract of jaborandi thrice daily. This dose produced excessive diuresis and diaphoresis. I am convinced that in jaborandi we possess a most valuable agent for combating the dropsical complications of Bright's disease. It should be given either in the form of the infusion, or the fluid extract. In cases where uræmic poisoning is a factor, and where the drug is consequently not well borne by the stomach, I have administered jaborandi by injecting it into the bowel. Though the effects of the drug when injected were not so striking as in the present case, I yet see no reason why it should not be given by the bowel as well as by the mouth. I have also tried the drug hypodermically, but I prefer not to speak positively at present of its effects when so used. In one instance I will say that it did produce considerable irritation of the skin. How are we treating this woman, now that the dropsy has all gone? She is taking dialyzed iron internally and hypodermically. This treatment is improving vastly her general health and nutrition. The origin of the disease in the present case is a very common one. It was brought on by cold and exposure. In children, acute Bright's disease generally follows scarlet fever. In adults it usually comes on immediately after exposure to dampness and vicissitudes of weather.—*Dr. DaCosta in Hospital Gazette.*

EXTRACTS FROM REPORT ON HISTOLOGY AND MICROSCOPY.

TRANSACTIONS OF CALIFORNIA STATE MEDICAL SOCIETY, 1877.

It is an accepted truism that no physician is competent for all the duties of his profession without a practical acquaintance with the microscope and microscopic manipulation: yet it is to be regretted that so few are to be found who are even tolerably expert in such studies. It is not an uncommon thing to find physicians who are well informed in other departments, who imagine that the examination of a pathological specimen may be easily made by a cursory view of a small piece or a drop of the fluid under the microscope, when in reality many hours or days are needed for the preparatory hardening, staining, and mounting, which are requisite for an intelligent judgment. In cases of doubtful pathological structure or diseased function, the only reasonable course left for those who are not sufficiently skilled in manipulation is to refer the examination to others. To facilitate such microscopical examinations, it is often necessary to transmit the specimens by mail. For this purpose Dr. Richardson, author of the "Handbook of Medical Microscopy," advises the use of acetate of potash. A fluid drachm of sediment containing tube-casts, etc., may be poured in a two-drachm vial containing the solid acetate. The latter will absorb the liquid so that it may be transmitted without leakage. For tumours, etc., a small piece, from one-fourth to one-half inch square and one-tenth of an inch thick, should be placed in a couple of drachms of saturated solution, made by pouring one-half an ounce of rain water upon one ounce of dry granulated acetate of potash. After forty-eight hours' soaking, the piece should be drained and wrapped in several folds of india rubber or oiled silk. In this way specimens may be sent by mail without risk of either decomposition or desiccation. As the acetate has no effect on oil globules, this plan enables us to recognize fatty degenerations in cases where specimens in alcohol or glycerine afford negative results. With deposits of acetate of lime or triple phosphates this plan will not answer, and Dr. Richardson advises the addition of twenty to thirty per cent. of carbolic acid to the fluid which contains them.—*Pacific Med. and Surg. Journal.*

THE CONTINUOUS BATH.

Hans Hebra (*Cbl. f. Chir.*, 1878, p. 89; from *Wien. Med. Wochens.*) has within the last fifteen years treated more than five hundred patients with the aid of the continuous bath. With the exception of some slight local irritating influence upon the skin, observed in a few cases, no disagreeable symptoms have been observed. The bath has even been continued during menstruation without disturbance. The treatment has been used,—

1. In burns (56 per cent. mortality). Favorable effect upon all symptoms; the effect in allaying pain is remarkable, Scars usually soft and smooth, and movement in no way hindered.

2. In pemphigus. While no cases of P. vulgaris proved fatal, a mortality of 81 per cent. was observed in P. foliaceus. In the latter affection the patient's condition was only endurable when in the bath. Relapses were not prevented.

3. In confluent variola. All patients in whom the eruption showed itself profusely were placed in in a warm bath when the eruption had reached its height, and with the best results.

4. In gangrenous wounds and ulcers, whether of syphilitic origin or not. Of the latter, gangrenous buboes were most frequently thus treated. (Mortality, 12 per cent.)

5. In phagedænic chancres the result was not less happy. In phlegmon and in fistulous wounds which would not heal in any other way, the continuous bath acted surprisingly well.

SALICYLATE OF SODIUM IN GOUT.—Dr. Bisson writes to the *Année Médicale* for February the account of a case of refractory gout of twelve years' standing in which this remedy was found of great use. The patient suffered from a severe attack every autumn; most of the joints had been affected, and there were numerous chalky concretions which here and there had ulcrated through the skin. No medicine had been of the least avail. Dr. B. gave the salicylate in doses of eighty grains in twenty-four hours, and with the best results.—*Phil. Med. Times.*

Surgery.

SACRO-ILIAC DISEASE — DIFFERENTIAL DIAGNOSIS FROM HIP-JOINT DISEASE.

I now present you with a case which was sent to me through the kindness of Dr. Hunt, of New Jersey, and which was supposed to be a case for exsection of the hip-joint. Dr. Hunt first saw the patient (colured) two weeks ago, but no satisfactory history of the case has been obtained. All the information which I have been able to obtain has been from the patient himself since his arrival at the hospital. He states that he is eighteen years of age; that two years ago he suffered from what might be called a general rheumatic fever. He has been exposed to wet, but under what conditions and to what extent was not ascertained.

As yet no satisfactory diagnosis has been made, and it is for the purpose of arriving at some definite conclusion in reference to this interesting and obscure case, that I have brought it before you.

When I first saw him three days ago, he was sitting up in bed, and occupied the exact position which a patient in the second stage of hip-joint disease usually occupies; that is, with the leg flexed upon the thigh, the thigh upon the trunk, the foot everted, and the limb *abducted.*

We will now apply Nélaton's test for displacement of the head of the femur, which consists in passing a line from the anterior-superior spinous process of the ilium to the tuberosity of the ischium. A line thus drawn will pass, when there is no displacement, exactly over the apex of the trochanter major, which we find to be the course of the line in this case. Now, if we had a fracture of the neck of the femur, the trochanter would be above this line; if absorption of the neck, head or acetabulum, the trochanter would also be above this line; the leg would be *adducted,* inverted and shortened. The position which the patient occupied when I first saw him, was sitting with his left leg flexed, abducted and rotated outward, which is the position of a limb when the hip-joint is over-distended, as with pus or serum. Further, in hip-joint disease, if the capsule of the joint be not ruptured, you cannot invert the toe, adduct the limb, or extend the thigh, without producing a great deal of pain. But in this case, taking care not to affect parts external to the joint by the motion of the limb, and to hold the pelvis absolutely still, we can invert the toe, and slowly adduct and extend the limb without causing pain. This would go to show that it was not the hip-joint which was involved, or else that the capsule of the joint has been ruptured, and the effusion into the joint squeezed out. Yet this can hardly be the case, for as we look at the limb, we see that it occupies the position common to the *second* stage of hip-joint disease. If the capsule of the joint had been ruptured or perforated so as to liberate the pus, the limb would no longer retain its present position, but would assume the position common to the *third* stage of hip-joint disease. Now, the limb can get in this position from muscular contraction, but if the deformity be due to muscular contraction, we cannot invert the leg and rotate it in, which movements we find can be effected in this case. This fact alone has satisfied me that there is no distention of the joint.

You probably will have observed that in making our examination we have avoided, as far as possible, all sources of irritation and excitement to the patient, for when these patients become irritated, it is almost impossible to do anything with them. As he lies quietly on his couch, we may make some further observations. Our object is to elicit the exact location of the disease. By the application of Nélaton's test line, we have found that the trochanter major is in its normal position. I can crowd the head of the femur firmly into the acetabulum without causing pain. And again, the leg is too long, and its position too good for a carious head of the femur, or carious acetabulum. You will observe that so long as we confine our examination to the hip-joint proper, our manipulations give rise to no pain; but when we crowd the ilii together with only a slight force, great pain is produced. By passing my thumb around the sacro-iliac junction, I elicit severe pain, and upon the inside I find a fulness which is indicative of a sacro-iliac

abscess which has burrowed its way along down the thigh. In my examination of the patient three days ago, the pus broke out on the left side at the upper portion of the thigh. Nearly a half pint escaped, and so strongly was it impregnated with the odour of fæcal matter, that at first I took it to be a portion of the contents of the large intestine, but further examination proved this not to be the case. The matter discharged must have lain for a long time in contact with the rectum, and have derived its odour from the fæces through the principle of osmosis. I am happy to state that Dr. Stephen Smith agrees with me as to the probability of this explanatory conjecture.

It is painful to witness the extreme suffering of this man; but to-day he is far more comfortable than when I first examined him.

Many of the symptoms which we have elicited from this patient this afternoon are present in cases of hip-joint disease, but it has been our aim to show you how they are to be differentiated from those of true hip-joint disease. If I make firm pressure over the iliac fossa on the right side I get no pain, but pressure in the same situation on the left side gives rise to extreme pain. Now observe what I am doing. Extension of the femur gives the patient ease; so it does in hip disease, but you will observe that I am extending the ilium through its attachments to the femur. I am making extension upon the sacro-iliac junction, and that is where the disease exists. As soon as I cease to make extension the patient is in agony, but so long as the extension is applied he is at ease. By placing my left hand over the superior crest of the ilium and pulling with great force, thus drawing the ilium from the sacrum, great relief is afforded the patient. While holding the ilium away from the sacrum, I am crowding the head of the femur firmly into the acetabulum, which gives rise to no pain, and settles the question that there is no disease of the hip-joint.

We have spelt out this case, as it were, and can now easily arrive at a correct diagnosis. We have found in our examination that so long as we do not affect parts external to the hip-joint, our manipulations give rise to no pain. With the sacro-iliac articulation extended, we can make firm compresson over the trochanter major without producing pain. When the ilii are crowded together, intense pain is produced. Here, then, we have a clear case of *sacro-iliac disease*, which has gone on to suppuration, and the pus has found its way along down under Poupart's ligament, and come out upon the anterior portion of the thigh.

With reference to the treatment of this case, the first step of essential importance is that a free outlet for the imprisoned pus should be made, and the parts cleansed thoroughly. For this purpose, we will make a free incision along the anterior portion of the thigh where the pus has accumulated, rinse the cavity out with carbolic wash, fill it with Peruvian balsam, and stuff in some oakum. Had the abscess opened posteriorly over the sacro-iliac articulation, I would have made a free incision down to the joint, and lay open fully any sinuses leading to dead bone, removing at the same time any accessible portions of necrosed bony tissue. By placing this patient in the upright posture, the chances for drainage will be greatly improved, and the antiseptic applications which we have made will tend to bring about a more healthy state of affairs.

In the treatment of these cases of sacro-iliac disease, I have recommended extension. During the time when the patient is in the erect posture, extension is to be made by increasing the thickness of the sole of the shoe which is worn on the foot of the unaffected side to such an extent as will permit the foot of the affected side to swing clear of the ground, and thus extension upon the sacro-iliac articulation will be made by the weight of the limb on the affected side. The extending force may be further increased by running lead into the sole of the shoe on the affected side. This method of extension is intended only to be used while the patient is exercising on his crutches. At night, and whenever resting in the horizontal posture, extension is to be kept up by a weight and pulley over the foot of the bed. The foot of the bed is to be raised a few inches higher than the head of the bed, by means of which the body acts as a counter-extending force. The abscess of the anterior portion of the thigh is now opened freely, and a large amount of very offensive pus with a distinct fæcal odour is escaping.

I have just made out another important point in this case. By introducing my finger through the incision which has been made to liberate the pus, I can pass it up and about the capsule of the joint which I find to be unruptured. This confirms our exclusion of the hip-joint from disease.

We now inject the cavity with carbolized water, and having thoroughly washed it out, fill it with Peruvian balsam. We elevate the limb, so that the disinfecting balsam may come freely in contact with all parts internally. We will stuff in some oakum, cover the part with oil silk, and over this apply a roller bandage. Extension must be made as we have already suggested. The patient should have a pair of crutches, so that he can get out into the open air and sunlight. He should have a sustaining diet.—*Dr. Sayre in Virg. Med. Mon.*

TREATMENT OF SEVERE ARTERIAL HÆMORRHAGE FROM PUNCTURED WOUNDS OF THROAT AND NECK.

BY MR. WM. HARRISON CRIPPS, F.R.C.S.

Royal Medical and Chirurgical Society.

The paper discusses the treatment to be adopted in cases of severe arterial bleeding, that have resisted all simple means, and in which operative measures become necessary. The class of cases include punctured wounds about the angle of the jaw and through the mouth, hæmorrhage from the tonsils, or from cancer of the tongue or mouth, and secondary hæmorrhage after surgical operations, &c. The treatment usually adopted in these cases has been a ligature upon the common carotid. Upon analysis of a considerable number of cases, it is found that, after this method of treatment, rather more than half the patients die. The causes of these deaths are approximately as follows:—Rather more than 30 per cent. from brain symptoms; rather more than thirty per cent. from recurrence of the bleeding; and 30 per cent. from other causes. It thus appears that one-third of these deaths are directly due to ligature of the carotid, and that in another third the operation had proved useless for arresting the bleeding. The brain symptoms appear to result from the already anæmic brain having a considerable portion of its blood-supply suddenly cut off, hæmorrhage occurring from the original wound (after ligature of the common trunk) must either be due to the blood coming as a regurgitant stream brought down the internal carotid, or by blood being brought through the fine anastamoses of the terminal branches. Experiments and facts narrated in the paper show that in a certain number of instances the bleeding is due to a regurgitant stream through the internal carotid, or to blood brought to the proximal end of the wounded vessel by the inferior thyroid. A table accompanying the paper shows how the bleeding vessel, wounded in the situation described, has most commonly proved to be the external carotid, or one of its branches, a wound of the internal carotid being of rare occurrence. Having discussed the cause of the high mortality following ligature of the common carotid, ligature of the external carotid, about half an inch from the bifurcation, is recommended as likely to prove a safer and more efficient method of controlling the bleeding. The grave danger of cutting off the blood supply to the brain is avoided by this operation, while at the same time the chance of recurrent hæmorrhage is diminished in proportion to the number of instances in which it occurs as a regurgitant stream. The objections raised to the operation are: (1) the fear of secondary hæmorrhage from the proximity of large branches; (2) that, should the wounded vessel prove to be the internal carotid, a ligature upon the external would be a useless operation. The first objection is answered by reference to cases narrated by M. Guyon, showing the rare occurrence of secondary hæmorrhage from the external carotid. The second, by the comparatively few instances in which the wounded vessel has proved to be the internal carotid. Moreover, should the mistake occur it is not beyond remedy, for a ligature might still be placed upon the common trunk at its bifurcation; on the other hand no remedy can be found for a patient dying in a comatose condition caused by obstructing the internal carotid on account of a wound of the external carotid or one of its branches.—Mr. Holmes only recalled one case

of punctured wound in the neighbourhood of the tonsil in which the internal carotid was thought to have been invaded, and ligature of the common carotid was had recourse to. If in such cases it were certain that the wounded vesssel was not the internal carotid, but a tonsillar branch of the external carotid, then clearly it was right to tie the latter vessel by preference. Mr. Cripps' argument was forcible, that the same incision made to expose the external carotid would serve also to secure the common trunk, supposing the first ligature failed to arrest the bleeding.—Mr. Baker had tied the common carotid in a case of hæmorrhage in the neighbourhood of the tonsil, from an injury by a tobacco-pipe. The patient died from loss of blood rather than the operation, and the ascending pharyngeal was found to have been the vessel wounded, showing that in such a case ligature of the external carotid would not have succeeded. Still, for the majority of cases the suggestions of Mr. Cripps were of value.—Mr. H. Cripps, in reply, said that in his collected cases only seven or eight were of wounds within the mouth, the majority being wounds behind the jaw. Wounds of the internal carotid were very rare, even in injuries in the neighbourhood of the tonsil, the tonsillar branch of the facial artery lying more superficially than the internal carotid, which out of five cases had been found post mortem to be wounded only in one.—*London Lancet.*

A Substitute for Cod-liver Oil in Cases of Skin Disease, attended with Marasmus.—After relating the circumstances which led him to employ oil of linseed instead of cod-liver oil, the doctor stated that latterly he was accustomed to use, in the place of the emulsified oil, simply the flaxseed itself. His patients were directed to carry it around with them, and take from a teaspoonful to a tablespoonful at a time. In this way they used sometimes half a cupful in the day. It was palatable and agreeable, and seemed to be readily assimilable. Its use was unattended with diarrhœa, and produced no eructations, or other disagreeable symptoms. He had used it in pemphigus foliaceus, lichen planus, lichen ruber exudativus, psoriasis, and in many phthisical and diathetic disorders, with the happiest results.—*Dr. Sherwell in Archives of Dermatology.*

LOCAL TREATMENT OF THE VARIOUS FORMS OF SYPHILIS.

Sigmund (*Vierteljahrschrift f. Derm. u. Syph.*, 1877, p. 436 ; from *Wiener Med. Wochens.*) prefers water, alcohol, ether, collodium, and glycerin as excipients before the various ointments, the former being neater and cleaner, simpler, more easily prepared and kept, and more conveniently used. Chlorate of potassium and acetate of lead may be used with advantage in aqueous solution (1 : 30) as protectives in excoriations of the skin of uncertain character. Even in extensive injuries, when these are superficial, they act well by coagulating the secretion and thus preventing further infection. They do not irritate the wound or the neighboring healthy integument, and they cause no pain. The lead is to be used preferably in excoriated, moist papular infiltrations, mucous patches, etc., in order to prepare these for the later use of other local means. Alcoholic solution of corrosive chloride of mercury (1 : 400), when applied carefully, covers excoriated and eroded patches of skin with a thin adherent layer under which the formation of epithelium goes on rapidly. The application can easily be confined to the spot required, and its action may sometimes be hastened by quickly brushing the affected region with alcohol beforehand. Stronger solutions (2–10 : 400) are caustic, and are best made in collodium. Sulphate of copper solution (1 : 200–400) makes a good wash or injection for use between the prepuce and glans. Stronger solutions (1 : 50 –100) used for 5 to 15 minutes are caustic, and concentrated solutions (1 : 3) are useful in deeply destructive processes in the soft parts : they give rise to a sharply-defined adherent crust, which comes away after some days, leaving a healthy sore. This salt may be employed to advantage in other forms (as ointment, crystal, powder, plaster) instead of nitrate of silver. The latter is particulary useful in lesions about the mouth. Empl. hydrarg. is a variously useful ointment, but is too stiff for ordinary use, and should be mixed with empl. saponis. From this mixture may be formed little plates, balls, rods bougies, etc., at pleasure. Syphilitic infiltrations become more rapidly absorbed under the local use of empl. hydrarg.

The preparations of iodine and bromine are particulary useful in diphtheritic exudations. Iodoform Sigmund thinks only occasionally useful, and not to be recommended, on account of its disagreeable and penetrating odor. Chloride of gold is quite inert

Chloride of iron acts very much like sulphate of copper, only it is more penetrating and injures the whole skin. In indolent, easily-bleeding, gangrenous ulcers, complicated with scrofulosis or scorbutus, occasionally used according to Lister's method, chloride of iron acts surprisingly well.

Chloride of zinc acts very much like chloride of iron, but is not quite so satisfactory in the cases above mentioned. Chloride of zinc paste is not suitable for syphilitic patients. Phenyl, salicyl, and thymol are not worth much either as dressings or as caustics. They are useful, however, in diphtheritic and necrotic wounds, and also in abscesses of the lymphatic glands if these are complicated with diphtheritis and gangrene. They may be employed in watery solution 1 : 50 to 100 for cleansing or as paste. —*Phil. Med. Times.*

CARBOLIZED GUT AS A SURGICAL DRESSING.

In a communication to the *Allgemeine Medicinische Central-Zeitung* for February 17, Dr. Flashar, of Polkwitz, writes as follows :—

Starting from the fact that catgut threads used for ligature are completely absorbed, it occurred to me to prepare portions of intestine in the same way as catgut, and to use them in appropriate cases as dressing. Having procured a piece of dried sheep's intestine, I cut it lengthwise, and soaked it in carbolized oil (ten per cent.).

After about six weeks, I had an opportunity of trying it in the case of a young man whose right hand had been injured by a machine. The wound, which gaped widely and penetrated the deeper tissues, extended obliquely along the surface of the hand to the middle and ring fingers, both of which were injured. The edges were torn and ragged, and the subjacent tendons were partly laid bare. After cleaning the hand and wound, I applied to the latter a large piece of the prepared intestine, still dripping with oil, in such a way as to overlap a portion of the uninjured skin. The whole was covered by a cotton-bandage and left undisturbed as long as circumstances allowed. For the first time, at the end of six days there was some offensive smell, and the patient felt a slight burning ; previously to this neither pain, swelling, nor inflammation had been observed. The dressing was opened on the seventh day, and, to my astonishment, I found that the portions of intestine lying on the wound were perforated, and for the most part absorbed; the wound beneath was in an advanced state of cicatrization, so that it wanted comparatively little to complete its closure. The smell which had been preceived proceeded from the portion of intestine which lay on the sound skin ; it had there assumed a whitish colour and appeared like intestine which had been softened in water. The dressing was renewed, the sound part being left free, and in a remarkable short time the small remaining portion of the wound was healed. The cicatrix was so soft and pliable that the vitality of the hand and fingers was not impaired in the slighest degree.

I made a second trial of the same material in in a case of separation of webbed fingers in a young child. After cutting through the uniting membrane, I wrapped each finger separately in prepared intestine, and also laid a piece in the angle of the wound. Cicatrization went on equally in all parts of the wounded fingers. Unfortunately the parents, who lived in a village, were prevented by bad weather from bringing their child to me at the proper time for removing the dressing, and consequently readhesion took place to a trifling extent. The cicatrix was so soft, and the tissues felt so normal, that I had no fear of future contraction and stiffness. In this case also I observed that the portion of intestine which lay on the normal skin had become soft and pale.

I believe it is absolutely necessary to soak the intestine for a month in the carbolized oil, in order to render it fit to be used as a dressing to amputation-wounds where skin-flaps cannot be formed, or to wounds in which a great loss of substance is to be feared, especially on the skin. —*London Med. Record.*

TREATMENT OF BURNS AND SCALDS.

BY CHRISTOPHER HEATH, F.R.C.S.

In private practice you will find the carron-oil—lin. calcis of the British Pharmacopœia, which is made with olive-oil, and is therefore pleasanter—answer very well; but you can use zinc or any other simple ointment.

We have of late in this hospital taken to use a preparation which is the invention of Mr. Godlee, and has the advantage to be to a great extent antiseptic. This is the boracic-acid ointment, and is made up in this way:

Boracic acid in fine powder....	1 part;
White wax.....	1 part;
Paraffin.....	2 parts;
Almond-oil	2 parts.

Melt the wax, paraffin, and oil with a gentle heat; then add the acid, and continue stirring until it remains of uniform consistence. Before using it should be reduced to a soft mass by rubbing it in a cold mortar.

The paraffin makes the ointment rather hard and solid in cold weather, and therefore it wants rubbing down in a mortar, or slightly warmed, and then it answers very well, and forms as good a dressing as you can have. So much for the first stage.

If you should be unfortunate enough to meet with an extensive burn all over the body, I should strongly advise you to make use of a warm bath, and put the patient, burnt clothes and all, into the bath. Hebra, of Vienna, treats his skin-patients with warm baths, and lets them sit in the bath until all the crusts soak off; and we may advantageously adopt the same plan with severe burns. Put them into the warm bath, and arrange that the temperature should be kept up. The water surrounding would float off the patient the burnt clothes and cuticle, and you would be left with a healthy granulating surface, and possibly might thus save a patient's life.

Jean Joseph Pascal, born at Callian (Var), formerly Physician in Chief and the first Professor in the Military Hospital of Strasbourg, has just died at Bordeaux. His writings were chiefly contributed to "*Les Memoires de Méd. Militaire.*"

Midwifery.

NOTE ON TWO CONTRASTED FORMS OF WEAK LABOUR.

Dr. Matthews Duncan communicated to the Edinburgh Obstetrical Society (*Edinburgh Med. Journal*, Feb. 1878) a note entitled as above, of which the following is an abstract:—

"The two forms of weak labour spoken of by Dr. Duncan in this paper are frequently confounded with one another with injurious practical results; but they are essentially different, and require a correspondingly different treatment. The one form is common and well known, the other has only been recognized of late years, and is not yet at all well known. The common form depends upon inertia of the uterus, and is most frequently seen in multiparæ who have had many children and are elderly. In this case the uterus is not stimulated to sufficient activity, and the delay is due to inefficiency and infrequency of the pains. The stage of the after-birth is apt to be attended with hæmorrhage. The rarer form is due to a quite different cause, and is, in many respects, a contrast to the former. It occurs chiefly in primiparæ, or in young women who have a special nervous mobility. Here the uterus is unduly but morbidly active. The tonic permanent contraction goes on with premature and injurious rapidity; the intermittent pains are frequent and painful, but inefficient. The body of the uterus, with its fundus higher in the abdomen than usual, is retracted over the body of the child, so that it forms only a comparatively small cap over the lower fœtal parts, and a distinct rim or sulcus can be felt a little below the umbilicus, where the contracted uterine body is attached to the greatly expanded cervix. The condition of the uterus in this form is similar to what is found in labours where the advance of the child has been long obstructed, and it is attended with like danger, yet there is no apparent difficulty in propelling the child and no obstruction. The treatment of two forms of labour so distinct from one another is naturally different. In the former, where the delay is due to inertia, the uterus is to be stimulated by oxytocics—of which ergot is the best—and by

kneading, rubbing, and similar means. In the latter, or premature uterine reaction, the uterus is not to be stimulated but soothed; opium and chloroform may be useful, but all oxytocics are to be avoided. Early delivery, if necessary with the forceps, is desirable. A case is given in which the second of these two forms was accurately observed."

MEDICAL EVIDENCE FROM THE STATE OF THE OVUM OR FŒTUS IN CASES OF CRIMINAL ABORTION.

(*The Boston Medical and Surgical Journal*, January 31, 1878).

Dr. F. W. Draper, in his report on the progress of forensic medicine, gives as follows the conclusions of a committee of the Société de Médecine Légale:

"1. Abortion in the *first* month of pregnancy is always attended with the expulsion of the complete ovum (*en bloc*), and it passes from the woman unperceived by her.

"2. The aborted ovum may, however, in some cases undergo spontaneous rupture during its passage through the neck of the womb.

"3. From the *second* to the *third* month also the ovum may be expelled in a complete condition; but this is not usual, except when the fœtus is dead. When the fœtus is living, it is more common to find that it has undergone rupture. This depends on various conditions, such as the degree of resistance offered by the ovum, the force of the uterine contractions, and the state of the cervix uteri.

"4. The absence of the fœtus does not prove that there has been criminal interference, for if the dead ovum have remained long in the uterus the fœtus or embryo may have disappeared by solution.

"5. Dating from the *third* month it is usual to find the ovum broken up, abortion taking place at two periods, with the discharge of the fœtus followed by that of the placenta.

"6. At the *fourth* month, and subsequently, abortion may be regarded as a delivery on a small scale. At this period it is exceptional that the ovum is found expelled entire.

"7. Up to the third month the cord is too weak to resist the force required to extract the placenta; and, *a fortiori*, it would not be strong enough to allow an inversion of the parts, as was assumed in the case reported to the Society.

"8. Rupture of the membranes, taken alone, cannot, therefore, be regarded as a sign of intentional abortion, and even if accompanied by an inversion of the membranes it cannot be admitted as sufficient evidence of a criminal act, even in the early stage of pregnancy."—*Phil. Med. Times.*

POST PARTUM HÆMORRHAGE TREATED BY THE INJECTION OF HOT WATER INTO THE UTERUS.—Dr Lombe Attill, in the *Lancet* of February 9th, extols the use of this remedy. He gives notes of 16 cases. The temperature of the water must be from 110° to 115°. The tube of the syringe should be carried fairly into the uterus. He also advocates similar treatment in flooding in miscarriages or abortions.

THE CELL AND PROTOPLASM.—In a lecture recently delivered at the Royal Institution, Professor A. H. Garrod said that he believed the original idea of a cell, as first taught by Schleiden and Schwan, is incorrect. The use of the reagents they employed, to get clearness as they supposed, really brought about artificially those changes which led them to believe that a cell consisted of cell wall, cell contents, nucleus, and nucleolus. He would define as a cell a separate mass of protoplasm, whether surrounded by formed material or not. This formed material comes from the precipitation of salts of lime by the protoplasm and from the formation of hyaline, etc. In this way the tissues of the body are built up. In the growth of the epidermis, the cells are gradually more and more filled with precipitated matter, the protoplasm occupies less and less space, and finally the cells die and are removed from the surface. In fatty tissue, the hydrocarbons of the food are gradually precipitated in the cells till the protoplasm becomes only an investing membrane.—*Philadelphia Med. and Surg. Reporter.*

Therapeutic Notes.

HOME-MADE MINERAL WATERS.

A writer in the *Medical Press and Circular* says: At my instigation, some of my medical friends have used the following mixture where the bitter saline purgative waters of Friedrichshall and Hunyadi Janos were indicated, with equal if not more satisfactory results in abdominal diseases, hepatic congestion, even attended with hæmorrhoids, plethora, etc.:

Sulphate of soda	3 drachms.
" " potassa	3 drachms.
" " magnesia	4 drachms.
Bicarbonate of soda	1 drachm.
" " potassa	1 scruple.
Water	20 ounces.
Muriatic acid	1 drachm.

Mix. The bottle is to be kept well corked, and in a cool place. A wineglassful the first thing every morning, in a tumbler of cold water. The addition of the muriatic acid answers a two-fold purpose: it saturates the mixture with carbonic acid gas, making it more palatable and the small quantities of chlorides it generates add to its efficacy in a surprising way. Sulphate of potassa is the best cholagogue in the saline shape, and invariably enters largely into all the natural waters of use in hepatic congestion. But all the natural waters contain more or less sulphate of lime (in common *parlance*, plaster of Paris), which adds nothing to its efficacy, and is objectionable.

Again: in gouty and rheumatic diatheses, where an iodized alkaline aperient is indicated, the following may be prescribed, and will be found far more efficacious than any of the natural waters:

Dry sulphate of soda	3 ounces.
" " " potassa	6 drachms.
Bicarbonate of potassa	2½ drachms.
Carbonate of lithia	½ drachm.
Iodide of potassium	½ drachm.

Mix. Dose, a teaspoonful the first thing in the morning in half a pint of tepid water.

If the patient prefer cold to tepid water, plain cold or aerated may be used.

In renal affections, where a course of the warm alkaline waters of Vichy or Carlsbad, or the cold ones of Vals, Jachingen, and Marienbad is desired, we may use (as Dr. Wade suggests) dilute solutions of potassa and soda bicarbonate with citrate of lithia. Sir H. Page has found soft or distilled water of great service in the palliative treatment of renal affections, and either the one or the other should always be used in the preparation of the solutions. They may be taken warm, or charged with carbonic acid.

By adopting such measures as these, we can confer, in some measure, the boon of mineral waters on poor patients, which is now only enjoyed by the wealthy.

Successful Treatment of Strychnia Poisoning by the Hypodermic Injection of Apomorphia.—In the April number of the *American Journal of the Medical Sciences*, Dr. R. Glisau, of Portland, Oregon, reports a case of strychnia poisoning, treated by apomorphia hypodermically. The symptoms were well marked and severe. It was impossible to give an emetic or use the stomach pump on account of the trismus. A third of a grain of muriate of apomorphia was injected, and vomiting commenced five minutes after. After the vomiting there was no recurrence of the general tetanic spasm, but an occasional contraction of a few muscles, when the patient was touched, moved, or disturbed.

Dr. Glisau has a prejudice against the use of apomorphia in narcotic poisoning, generally, and in ordinary forms of disease requiring emetic, because of the occasionally dangerous results where vomiting is not produced, but he believes it pre-eminently adapted to poisoning by strychnia on account of the two-fold action of *antagonizing the rigidity of the muscular system, and of promptly relieving the stomach of the unabsorded portion of the poison.* He estimated that the patient took six grains of strychina. Half an hour elapsed before he arrived. From his experience of strychina poisoning, he is firmly convinced that death was chiefly prevented by the prompt action of the muriate of apomorphia.

Liquor Arsenicales in Prickly Heat.—This remedy is highly recommended by a writer in the *Indian Medical Gazette.* He gives it in the usual doses.

RATIONAL TREATMENT OF LEAD POISONING.—Dr. Geo. Hay, in a communication to the Philadelphia *Medical Times*, whilst approving of the method at present in vogue of treating acute saturine poisoning, takes exception upon chemical grounds to that ordinarily pursued in the treatment of the chronic affection. In the acute form, he says, the poison is without the system, that is to say, in the alimentary canal, and the object of treatment is to render it insoluble, and hence unabsorbable, and to get it out of the stomach and intestines as speedily as possible; both of these objects are very well obtained by the administration of sulphate of magnesium. In the chronic form of the affection, however, the poison is in the tissues, and the treatment should be to render it as soluble as possible in the aqueous fluid of the blood, and to promote its excretion by the various emunctories. These ends, he maintains, cannot be reached by the administration of the usual iodide of potassium and sulphate of magnesium; and for chemical reasons he suggests the substitution of the chlorides, and especially common chloride of sodium. He would give it in one drachm doses three times a day. If a saline hydragogue cathartic is required, it should be chloride of magnesium or citrate of magnesium, and not the sulphate. No sulphates of any kind whatever should be used, except those unavoidably present in the food. At the same time he would promote elimination by the skin by means of the daily use of tepid baths and a soft flesh brush. Debility should be overcome by the use of such tonics as tinctura ferri chloridi, liquor strychninæ (not the sulphate), tinctura cinchonæ, &c., and such nutrients as animal broths, milk, eggs, &c. The patient must of course be protected from any source, patent or occult, of perpetuation of the poisoning, and a suitable drinking water should especially be provided.

PROPYLAMINE IN CHOREA.—Dr. H. Parkhauser recommends the above agent as a specific in chorea, curing in three or four days. He gives it in doses of from 15 to 19 grains per diem, dissolved in ʒiv. of water and ʒj. of syrup, given in tablespoonful doses every hour.

Original Communications.

OVARIOTOMY.

BY J. H. COTTON, M.B., L.R.C.P. AND S., ED.

The frequency of ovariotomy and the success which has attended the operation during the last few years, seem to justify medical men in undertaking the operation at an earlier stage of the disease than is recommended by writers on the subject. In too many cases the operation is resorted to as the last means of giving the patient a chance for life, when she is worn out by continual suffering and the inroads made by disease upon her constitution. That it may be safely undertaken in the early stage is now an established fact of gynæcology, and the following case is given as an illustration of how little danger attends the operation when performed under favourable circumstances:—

Mrs. W——, aged forty-five, sanguine temperament, of good family history, consulted me on December 29th, 1877. She gave the following account of her condition. For some years she had been subject to severe hepatic trouble, attended with dyspepsia and general loathing for food. Had frequent fugitive attacks of peritonitis. In early youth had been troubled with dysmenorrhœa, which had passed away after marriage. For some time had had a swelling on the back over the region of the right lobe of the liver, which, after a discharge of blood per rectum, had disappeared. Is now troubled with severe dyspepsia, and suffers severely from nervous prostration. About three years ago she lost a relation, and her menses, which till then had been regular, ceased suddenly. Suffered at the time some pain over the region of the ovaries. Has an anxious hippocratic expression: skin tinged yellow. Made no mention of tumour. Upon examination, liver was found to be slightly enlarged, with tenderness over the part. In the right iliac region a tumour was found about as large as the head of a small child, which was diagnosed as ovarian. When informed of the nature of her trouble and the only means of affording her permanent relief, she expressed herself as resolved to have the operation done as soon as possible. She

was informed as to the risks, and advised to wait until it was causing greater functional disturbance. Subsequently she consulted Dr. Groves, of Fergus, who gave the same opinion. She, however, insisted that it was breaking down her health and wished to be operated upon. After consultation with my colleague, Dr. Black, I resolved to operate in May. To improve her dyspepsia she was put upon lacto-peptine and nitro-muriatic acid mixture, with good results. By April her general health was much improved, and the operation was fixed for the 7th of May. The preparation and the details for the operation were entrusted to Dr. Black who was associated with me in the after treatment of the case. I was also ably assisted by Drs. Groves of Fergus, Trimble of Queenston, and Ecroyd of Mount Forest. There were also present Drs. Dunbar, Jones, and Jamieson, and Mr. Cotton, Medical Student. A careful examination was made of the tumour. It was found to have increased rapidly in size. The situation was observed in the left side. The uterus was immoveable, and it was feared that the organ was implicated. Obtained from left iliac region, with hypodermic syringe, a quantity of dark grumous fluid. Were it not that the contents of ovarian cysts vary so much in their physical characters I would be inclined to regard this as pointing to malignancy.

Operation.—An hour before the operation the patient was given tr. opii. gtt. xxx., and just before the administration of chloroform one ounce of brandy. Dr. Ecroyd began the administration at eleven o'clock, and in about five minutes the patient was well under its influence. I commenced the operation by an incision, beginning one inch below the umbilicus, and extending for about five inches in the linea alba. This incision it was found necessary to enlarge. The peritoneum having been reached it was divided upon a director, and the tumour exposed to view. The hæmorrhage, which was trifling, was readily controlled; and the abdominal cavity explored for adhesions. The tumour was found to be adherent to the left side, the cystic portion occupying the middle and left side of the abdominal cavity. The adhesions having been carefully separated, the tumour was drawn up and tapped with a large trocar, and a large quantity of thick grumous fluid escaped. The upper part of the cyst wall was very thin and was unfortunately ruptured, a quantity of the contents escaping into the abdominal cavity. The tumour was found to spring from the right ovary by a long non-vascular pedicle. This was tranfixed and secured by a strong carbolized silken ligature. The tumour was then cut off, and the pedicle returned into the pelvic cavity. The uterus was found to be firmly wedged low in the pelvis, a condition which had obscured the diagnosis. The left ovary was healthy. The peritoneal cavity having been carefully sponged out, the wound was closed by six deep carbolized silk sutures and covered with oiled lint. The abdominal walls were supported by strips of adhesive plaster, and bandaged with flannel. The patient was placed in bed one hour and ten minutes after the beginning of the operation. The pulse was 76, with very slight symptoms of shock. She was given a hypodermic injection of morphia sulph. gr. $\frac{1}{3}$, which was repeated in half an hour. Symptoms of nausea appearing, twenty drops of tr. opii. in a tablespoonful of iced brandy, were administered, after which she slept for about an hour.

The microscopic examination of the tumour and fluid which together weighed twenty-one pounds, gave the following results: Fluid contained a quantity of granular matter, epithelial scales, pus and blood cells, the debris of degenerated tissue. Specific gravity 1016. The solid portion presented all the characters of the adenomata, originating from the ovary.

Progress.—May 7th. Three hours after the operation the patient rapidly rallied, the pulse being 85, full and soft, temperature 98·5°, skin moist and warm. No nausea. Is but slightly under the influence of opium. Eight p.m., pulse 105, temperature 100°. To take the following: (*a*) ℞. Tr. aconitæ gtt. xx, ex. gelsemini 3 gr., Tr. opii. co. ʒiv, liq. ammon. acet. ad. ʒij, F.M. sig. coch. parv. 3 tia hora. (*b*) ℞. Pv. opii. gr. vi, Hydrarg. subchlo. gr. ii, Quinine gr. xii, ft. pulv. No. vi. sig. Unam cap. 3 tia. hora.

May 8th,—Six a.m., pulse 102, temperature 99·2°. Passed a good night, slept about five hours. Some nausea, vomited three or four times towards morning. Expressed herself as

feeling very easy. Substituted cerii. oxalas for the quinine, in powders, to continue the mixture. Six p.m., has slept about four hours, no vomiting, but little pain. Has taken a raw egg, and some milk in which crushed wheat had been boiled. Pulse 104, temperature 99·5°.

9th.—Seven a.m. Condition improved, has a good appetite. Has had no pain. No tenderness over abdomen. Urine, which has been drawn off every six hours, is dark-coloured, alkaline reaction, copious deposits of earthy salts. Pulse 95, temperature 98 5°.

Eight p.m. Pulse 98, temperature 99·3°. Complains of sharp darting pains over abdomen and in back. Tongue moist. To continue mix ture and powders.

10th.—Seven a.m., pulse 90, temperature 99·3°, tongue coated, breath offensive. To omit mixture and to take the following every three hours :—℞. Lactopeptine gr. iv, cerii. oxal. gr. ii, opii. gr. ½. Ft. pulv.

Eight p.m. Pulse 90, temperature 99·2°. Pain in seat of wound, no tenderness over abdomen. To continue liquid diet.

12th.—Troubled with flatus. Was given an enema of warm water with half an ounce each of turpentine and tr. assafœtidæ, which gave relief. Was given pv. rhæi. co. gr. x. every four hours till bowels were moved.

15th.—Removed stitches. From this day the patient rapidly improved, with no unfavourable symptoms.

Milk.—To convert, so to speak, cow's milk into human milk, allow one-third of a pint of new milk to stand for about twelve hours, remove the cream and add it to two-thirds of a pint of new milk, as fresh from the cow as possible. Into the one-third of a pint of blue milk left after abstraction of the cream, put a piece of rennet one inch square. Let the vessel stand in warm water till the milk is fully curdled, which requires from five to fifteen minutes, the rennet being removed as soon as the milk curdles, and put into an egg cup for future use, as it can be employed daily for a month or two. Break up the curd thoroughly, and separate the whole of the whey, which should be rapidly heated to boiling, when a little more casein separates and may be removed by straining. 110 grains of powdered sugar of milk is to be dissolved in this hot whey, and the sweetened fluid added to two-thirds of a pint of new milk.

Translations.

From *Lyon Médical.*

Harmlessness of Liquorice Wood in Saccharine Diabetes.

BY M. STANILAS MARTIN.

Some months ago, a man affected with permanent diabetes was seized with an intense thirst, which was augmented by an increase of temperature ; he came and put this question to me : Would there be any danger in my taking a liquorice drink ? Before answering positively, we thought it well to ascertain whether the sweet principle of this *maceratum* could traverse the liver without being transformed into glycogen, as occurs in the case of starch and sugar.

This patient, having consented to submit himself to the experiments we were desirous of making, we caused him to drink each day, one litre (quart) of water, in which there had been allowed to infuse in the cold 10 grammes (150 grains) of the liquorice wood cut into small bits ; night and morning he sweetened his half-cupful with a teaspoonful of the same preparation, but made in more concentrated proportions, and in the following doses :—Of liquorice wood, deprived of its bark, and cut into small bits, 5 grammes (75 grains) ; of cold water, 15 grammes. Allow it to macerate for 4 hours, then decant.

This preparation, made with ordinary water, does not keep so well as that made with distilled water. In the absence of distilled water, a little brandy may be added.

The addition of the *maceratum* of liquorice to coffee in no way affects its aroma or flavour, it slightly modifies its bitterness without altering its properties.

We have analysed the urine of this patient every day, and have never found the least increase of sugar in it. For 15 days we mixed with the food given to a rabbit, a certain quantity of liquorice wood reduced to an impalpable powder. The animal was killed in order to remove its bladder ; the urine that it enclosed contained glycyrrhizine, which led us to the conclusion that this glucoside, as Gorup-Basanez considers it, is not changed in its

nature by traversing our digestive organs, and is in nowise altered by the influence of the alkalies of the blood or by oxygen.

Diastase, placed in contact with a concentrated infusion of this wood, does not affect its sweetening properties.

From our experiments, it may be admitted that diabetics may, without fear of aggravating their malady, make an habitual use of liquorice: it will supply the place of sugar.—*Bulletin de Thér. Méd. et Chir.*

From *La France Médicale.*

Diagnosis of Diabetes.

In a communication published in the *Berliner Klinische Wochenschrift* (Nos. 41 and 42, 1876,) Dr. Veit points out how important it is to make an early diagnosis in saccharine diabetes. The beginning is rarely sudden, and when the affection is fully developed it is very rarely, if ever, curable. He insists upon the nervous symptoms which often precede the appearance of diabetes. The urine should be examined in all neuroses of uncertain nature. Having determined the presence of sugar it is necessary to ascertain whether the glycosuria be permanent or temporary. Temporary glycosuria or melituria may show itself suddenly after a powerful cerebral excitation, in persons who were previously in the enjoyment of good health; it may also show itself after carbonic oxide poisoning, after traumatic lesions, such as falls or blows upon the head, after wounds of the brain or alcoholic excesses. It is also found in certain diseases, such as sciatica, cerebral apoplexy, mental alienation, and phthisis. Quincke has found sugar in the urine after morphia poisoning. Traces of sugar have been found in the urine of pregnant women and of nurses. Change of disposition, abnormal irritability, insomnia, and extreme sensation of fatigue, trouble of vision, itching of the skin, pruritus of the genitals, especially of the vulva, more or less continuous headaches, are often the precursors of saccharine diabetes. In all cases of ill-defined neuroses, headaches, more or less continuous, especially in very stout individuals, Veit examines for sugar in the urine; in the last two or three years he has thus eight times discovered diabetes in cases where nothing else led it to be suspected. As for furuncle and carbuncle, their connection with diabetes is too well known to need to be insisted upon here.

From *L'Union Médicale.*

The Percussion of Bone.

Lkucke employs percussion of bone in a host of surgical cases, either to discover various painful points, owing to the modification which disease impresses upon the normal percussion note afforded by bone, textural changes in different parts of the skeleton. He practices this percussion either with the fingers or with a little plexor, and he never omits to compare the results obtained with that afforded by a similar exploration of the (corresponding) sound bone, on account of the great variations which are furnished by different persons. * * The acoustic differences between diseased and sound bones may be especially noticed in the case of the long bones of the limbs. It should always be recollected that the epiphyses give a higher note than the diaphyses. A recently consolidated fracture, by the lower note elicited by percussion in its vicinity, affords evidence of obliteration of the central canal and of the presence at this point of a thick osseous mass of compact tissue. Chronic osteitis of the epiphyses also furnishes a duller sound, whilst a tibia whose tissue is rarefied gives a note remarkably higher than that emitted by the sound tibia of the other leg. This percussion should always be practised while the limb is raised and not resting upon a resisting plane (bed or table.)

From *Gazette des Hôpitaux.*

The Elements of the Blood.

At the *Société de Biologie*, M. Pouchet made a communication upon those little bodies which are found in the blood, and which M. Hayem and he have recently studied, each from his own standpoint. He observed that these bodies had been seen by Donné in 1842, and had been described by Zimmerman in 1846. M. Hayem, it will be remembered, considers these small bodies as germs of the red globules. M. Pouchet, after a great number of researches, thinks he can affirm that they are detached fragments or emanations from the bodies of the leucocytes.

THE CANADIAN
Journal of Medical Science,
A Monthly Journal of British and Foreign Medical Science, Criticism, and News.

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending their addresses to the corresponding editor.*

TORONTO, JULY, 1878.

CHANGE OF RESIDENCE.—Dr. Zimmerman, Corresponding Editor of this Journal, has removed to 171 Church Street. All communications, letters, and exchanges should be directed to the above address.

THE ONTARIO MEDICAL COUNCIL.

In our last issue we ventured to suggest that the representatives of the profession in Council assembled might, perhaps, more profitably spend their time in reforming our system of medical education than in the noisy and childish wrangling to which we have too often had to refer with sorrow and indignation. But the late meeting, we regret to say, has been no exception to many that preceded it, and four days were occupied at great expense, while comparatively little work was done. Indeed, were it not that we live in hopes that the next election may make the *personnel* of the Council what it ought to be, we should be strongly disposed to discuss the question, "*Is the Medical Council of Ontario worth preserving?*" As at present constituted, it is not, but if, after next election, by the votes of the profession purged and cleansed, it reassembles clothed and in its right mind, we shall as cordially and as earnestly support it as we have ever shewn ourselves anxious to do from its beginning. There are many good men and true in the Council, capable, honourable, and anxious to do their duty, but, unfortunately, they are in the minority. In view of the coming opportunity that we shall have of expressing our dissatisfaction with the actions of some of the members, we urge all to carefully study the report of the late meeting of the Council, and to recollect how similar have been the reports for many years. There are points of reform in medical legislation upon which we hold views, we are aware, that many conscientiously oppose; there are others, however, often referred to by us, which a large majority of our medical brethren, if they take that interest in the cause of higher medical education that it is their duty to do, must support. We have felt strongly that the present system of appointing examiners is a wrong one, yet we know of many who honestly hold a different opinion. We hold that the didactic teaching demanded is excessive, yet others think differently, and we are content to wait for a reform that we must obtain in time; but what we want is to have capable men sent to legislate for us, not noisy obstructionists, or utter incapables, who crowd out the service of the working men. We wish to have a Council that will be able to carefully guard the money that is entrusted to them, and transact our business without waste of time; one that will not interrupt business for hours in order to send a deputation to the Attorney-General upon an impossible errand; one that will not adjourn for hours in order that all its members may accept an invitation to visit the Hospital, when a Committee could have been deputed to do so; one that will not year after year sanction the payment of money to any member for doing work that he was never asked or ordered to do. At present we find that a member unauthorized by the Council, without the sanction of the Executive Committee, assumes the duty of improving and superintending the printing of the Bill to Amend the Ontario Medical Act, and not only that, but he has the presumption to charge fifty dollars for such service, and actually receives from the Treasurer $28 50 for cab hire to the Parliament House in connection with the same work. We find that the same member assumes without authority to prepare an elaborate Anatomy Bill, though warned that such a Bill could not pass, and for this he presents an account of $100. We find the same member receiving $17 50 for cab hire and service at the college; he, unauthorizedly, supervises the Annual Announcement, and

for this he charges $30. Another bill paid this same member is $29 50 for cab hire and messengers, and so on *ad nauseam.* Year after year this thing is done. The Council meet; the Finance Committee report; a great hubbub occurs, and yet the very men who are loudest in their denunciations of the practice, after boiling over, simmer down and vote that the money be paid, on the distinct understanding, of course, that this year shall be the *very last time.* Now, what happened this year? The account presented amounted to $282 50, in addition to $30 already paid. After warm discussion, it was voted that $170 be paid in full of all demands, a sum very indignantly refused by the gentleman to whom it was voted, who claimed all, or nothing, yet, we venture to say, a sum exactly $170 more than he had any right to expect. With an equal sessional allowance with other members, he presents in addition an account for $10 25 for cab-hire during the late meeting of the Council. There is one point more upon which we must again join issue with the Council, and that is, the yearly recurring farce of special examinations. Every year is to be the last, but still the evil goes on. It is an injustice to those who, not looking for like favours, have at the expense of time and money complied with the rules and regulations of the Council, and it is an encouragement to others to evade the regular examinations, if they think that they will have the chance of a *pro formâ* one, as we know the examination held this year practically was. There is one question upon which we were glad to see the majority of the Council prevail, and that is the refusal to pass resolutions granting registration of British qualifications, until a reciprocity was assured them. The decision to secure either a building or a site for a building, in order to provide a suitable examination hall or council chamber, meets with our cordial approval. We shall be glad to see this matter successfully carried out, and have no doubt from the character of the committee appointed to attend to it that the work will be well done. A Registrar's office centrally situated is greatly needed. The present building in the Queen's Park is too far away to be available to any one but the Registrar himself. In time, too, we hope to see a College Museum and Library established. In view of the additional expenditure that this project will entail, we trust that the annual assessment will be impartially levied, and that the astute Vice-President and the Executive Committee, backed up by Dr. Daniel Clark's resolution as to payments, will see during the ensuing year that no wasting of trust money is allowed, and we look to the influence of the medical press throughout Canada to stir up the profession to a sense of their duty, to send, as their representatives in the next Ontario Medical Council, conscientious, consistent, and capable men.

AMERICAN MEDICAL ASSOCIATION.

The American Medical Association met this year in Buffalo, on Tuesday, June 4th. The Committee of Arrangements had made preparation for a thousand delegates, not more than six hundred, however, availed themselves of the opportunity of attending. When the Society had been called to order, the proceedings were opened with prayer by the Rev. T. Van Bokkelern of Trinity Church. Dr. Rochester, of Buffalo, then addressed the Association, welcoming the members to the hospitality of the city.

The President, T. G. Richardson, M.D., of New Orleans then delivered his Annual Address.

The address, which was a long and able one, dwelt particularly on the two great questions of the day, Medical Education and State Hygiene. Under the former head, Dr. Richardson recommended greater strictness in examination of students and a more thorough and elaborate course of study than had hitherto been insisted on.

Harvard, Chicago Medical College and the University of Pennsylvania were especially complimented on the changes they had recently made in their Medical Curriculum.

The President also recommended the giving prizes in money to those practitioners who had sent in the best original thesis on some medical subject. The object of the prizes being to stimulate original investigation among members of the profession.

Following the President's address, Dr. Brodie of Detroit read a short report of his visit to the Canada Medical Association, which met in Montreal last fall. The Dr. spoke in the highest terms of the courtesy shown to him by members of the Canada Association.

The Association then resolved itself into five different sections, before which a number of papers were read.

The forenoon of each day was occupied by a general meeting of the Association, and the afternoon, by a meeting of the various sections. On Wednesday morning, Prof. Smith of Philadelphia, Chairman of the Surgical Section, read a very elaborate paper on the Physiology and Pathology of Bone, especially in relation to chronic inflammation of joints as Morbus Coxæ, He described, and strongly supported the view, that both the white and red corpuscles of the blood were, to a great extent, formed in bone marrow.

He related a number of experiments and exhibited some specimens in proof of this theory. On this view of the physiology of blood, he then proceeded to explain the pathological process which takes place in Pyæmia and in Morbus Coxæ. The thesis was concluded by a reference to the treatment of the latter disease, and also of similar conditions in other joints, during which he took occasion to say that the extension treatment of Sayre, as adopted for Potts' disease of the Spine, was in use more than a century ago.

Dr. Smith strongly insisted on the presence of a dyscrasia in most of these cases of joint diseases. A short discussion followed, in which Drs. Gouley and Sayre took part. Both of these gentlemen strongly opposed the idea of struma, or any other form of dyscrasia, being successive to the production of joint diseases. Dr. Sayre related a case of hip joint disease in a little boy, the history of whose ancestors was traced back two hundred years, and no case of consumption had been found in any of the progenitors. The Dr. gave this as a strong argument against the old idea of struma.

Dr. Cutter of Boston gave a lecture on the peculiar changes which take place in the white corpuscles of the blood in syphilis. The lecture was illustrated by several photographs. He is a strong believer in Lostofer's and Salisbury's views with regard to this disease.

The members of the Association were entertained on Tuesday evening by the Buffalo club, on Wednesday evening by the Society of Arts and Science. In the museum of the latter, there is a remarkably fine mineralogical cabinet.

On Friday an excursion was made to Niagara Falls, which ended the proceedings.

During the meetings, we were frequently disagreeably impressed by the patronizing manner which the schoolmen exercised towards those of the general profession. The former seemed sometimes to forget that they were not speaking to students, but to their equals in professional attainments. We were also struck by the absence of a very large number of the most scientific and most persevering of the younger rising men of the profession. As to why this should be, we would not presume to give an opinion.

The Canadian delegates, Drs. Clark, Trenholme, and Botsford, by the invitation of the President, occupied seats on the platform.

Art Publications of George Stinson & Co., Portland, Maine.—We have received from the above firm copies of steel engravings entitled "Life's Morning," "Happy Hours," and "Empty Sleeve." These are certainly beautiful specimens of art and a credit to the firm publishing them. Their chromo of "Calla Lillies" is an elegant one. An advertisement appears in another column.

Canada Medical Association.—This Association, which will meet in September next at Hamilton, ought to be largely attended by the profession, and especially by those residing in the Western part of Ontario. We would suggest to County and Territorial Associations, where they exist, the advisability of appointing delegates. It is hoped that many will go prepared to read papers.

Canadians in England.—David H. Dowsley, of Clinton, and George T. McKeough, of Chatham, and James Fulton, M.D., have been admitted members of the Royal College of Surgeons, England.

Book Notices.

McGill University, Montreal, fortieth annual announcement of the Faculty of Medicine.

Eulogy upon Lunsford P. Yandell, M.D. By Theodore S. Bell, M.D., Louisville, U. S.

Old Age, its Diseases and its Hygiene. By Lunsford P. Yandell, M.D., Louisville, Kentucky.

By-law to regulate the Proceedings of the College of Physicians and Surgeons of Ontario. Too cumbrous for use. Contains 151 clauses

The Physics of Infectious Diseases. By C. A. Logan, A.M., M.D. Chicago: James McClurg, & Co. 1878

The Herald of Health, a Manual of Practical Hygiene, or Guide to Health. E. W. Gray, Editor, Bloomington, Ill. May, 1878. Vol. I., No. 1. Sixty cents a year—twenty months, one dollar.

University of Toronto. New Curriculum in the Faculty of Medicine.—The proposed curriculum of the University of Toronto in the Faculty of Medicine is now before the Senate. It exacts a high standard of knowledge, and will render the degrees evidences of high culture both in preliminary and professioual education. We shall publish it next month.

New Medical Register.—We have received a copy of the *New Medical Register*, which will not be published until the names of those said to be registered have been revised and examined by the Executive Committee at its first meeting. There are about 1,700 names on the roll, as against 1,478 in 1874. This gives, according to the Registrar-General's estimate of the population for 1876, 1 to every 1,100 inhabitants.

Functional Disorders of the Brain and Nervous System induced by overwork and other influences incidental to modern life, with the formula and treatment, by the use of Phosphorus. Published by Wm. Warner & Co., Philadelphia, compiled from monograph by S. Kirby, M.D., M.R.S.C.E., and Prof. J. A. Thompson.

Meetings of Medical Societies.

COLLEGE OF PHYSICIANS AND SURGEONS OF ONTARIO.

ANNUAL MEETING OF THE COUNCIL.

The Council met on June 11th, in the City Council Chamber. The credentials of the new members, Dr. Herriman of Port Hope, and Dr. Spragge of Toronto, the newly elected members in the place of Drs. Dewar and Hodder, deceased, having been examined and found correct, the retiring President, Dr. Clark, gave an address.

During the past two years he (the President) had endeavoured to carry into effect the penal clauses of the Medical Act, the only exceptions made being in the cases of graduates in medicine who had shown valid reasons for not having come up for license at any of the examinations. An effort had been made to get a Bill of amendments to the Medical Act passed at the last session of the Local Legislature. The Bill having been introduced late in the session, failed to pass; but a canvass of the House showed that both sides were favourable to the amendments. In view of the difficulty in the way of providing sufficient accommodation for the examination of the large number of students coming up for examination, he suggested that the building in the Queen's Park at present occupied by the Registrar should be fitted up for the purpose, or that a piece of property should be purchased in a central part of the city and a suitable registrar's office and examination hall erected thereon. He had observed that Dr. Hingston had made reference in an address before the Canada Medical Association to Dr. Jenks, of Detroit, who had been threatened with prosecution for practising medicine on the Canadian side of the line. While there was no objection to distinguished medical men crossing over to consult with some of their Canadian brethren, there was a decided objection to their coming over to treat patients. If they did so they must pass the examinations prescribed by the Canadian colleges, or else expect to be prosecuted, as they should be.

The President having left the chair and the Registrar taken it,

Dr. BERRYMAN, seconded by Dr. LYNN, moved a vote of thanks to the retiring President, which was carried unanimously.

ELECTION OF PRESIDENT.

DR. WM. CLARKE, of Guelph, nominated Dr. Campbell, of Toronto, for the presidential office, which DR. BERRYMAN seconded.

DR. MACDONALD nominated DR. DANIEL CLARK, seconded by DR. GRANT.

On the vote being put, Dr. Campbell was declared elected on the following division :

YEAS.—Drs. Wm. Allison, C. V. Berryman, David P. Bogart, D. Campbell, George A. Carson, Wm. Clarke, Seth S. Cornell, E. G. Edwards, W. B. Geikie, G. Henderson, George Logan, J. P. Lynn, R. J. P. Morden, E. W. Spragge, and Elias Vernon—15.

NAYS.—Drs. W. T. Aikins, Alex. Bethune, W. H. Brouse, D. Clark, J. A. Grant, Weston L. Herriman, John Hyde, C. A. Irwin, M. Lavell, J. D. Macdonald, J. W. McLaughlin, and James Ross—12.

On motion of Dr. WM. CLARKE, Dr. Wm. Allison was unanimously elected Vice-President.

STANDING COMMITTEES.

On motion the following Committee was appointed to draft Standing Committees for the year :—Drs. Brouse, Geikie, D. Clark, Macdonald, Cornell, Berryman, and Vernon

The Council then adjourned for fifteen minutes to give the Committee an opportunity to perform its duties. At the expiration of that time,

Dr. GRANT, on behalf of the Committee, reported the following list of Standing Committees :—

REGISTRATION.—Dr. Bethune, Dr. Bogart, Dr. Henwood, Dr. Lynn, Dr. Vernon, Dr. Spragge.

PRINTING.—Dr. Cornell, Dr. Carson, Dr. Macdonald, Dr. Morden, Dr. Muir, Dr. Lynn.

EDUCATION.—Dr. Aikins, Dr. Brouse, Dr. Berryman, Dr. Geikie, Dr. William Clarke, Dr. Edwards, Dr. Grant, Dr. Lavell, Dr. Logan, Dr. McLaughlin, Dr. Morrison, Dr. Daniel Clark.

FINANCE.—Dr. Hyde, Dr. Herriman, Dr. Henderson, Dr. Irwin, Dr. Ross.

RULES AND REGULATIONS.—Dr. Brouse, Dr. Berryman, Dr. Bogart, Dr. William Clarke, Dr. Daniel Clark, Dr. Edwards.

The report was adopted.

SECOND DAY—MORNING SESSION.

The President took the chair at ten o'clock.

REPORTS.

The report of the Board of Examiners was received and referred to the Education Committee.

The report of the Medical Prosecutor was read. It stated that he had during the year visited every county in the Province of Ontario, and had found a large number of unregistered practitioners. The enforcement of the Act gave general satisfaction, the public being favourable to it; but many who openly violated the Act had escaped because evidence could not be obtained without great expense and loss of time. Out of seventy-five cases tried all had been fined, but in twenty cases the fines had not been paid.

This report was referred to the Committee on Registration.

MEMORIAL OF CONDOLENCE.

DR. DANIEL CLARK, seconded by Dr. EDWARDS, moved the appointment of a Committee, composed of the President, Dr. William Clarke, and Dr. Berryman, to draft a suitable memorial of condolence with reference to the late Drs. Dewar and Hodder, to be forwarded to their respective families. Carried.

EXECUTIVE COMMITTEE.

The REGISTRAR read the minutes of the various meetings of the Executive Committee held during the year. After some discussion they were referred to a special committee.

PROCEEDINGS OF THE COLLEGE.

Dr. ALLISON moved,

That the by-law to regulate the proceedings of the College of Physicians and Surgeons of Ontario as adopted by the Executive Committee, acting under the instructions of the Council, be ratified, leaving it open to any member to offer any amendments during the present meeting of the Council.

The PRESIDENT called Dr. Grant to the chair, saying that he wished to speak on this motion.

Dr. ALLISON said the President was now in his proper place. (Laughter.) He adverted to the great labour which Dr. Campbell had given to perfect these by-laws.

Dr. Daniel Clark gave Dr. Campbell the fullest credit for his painstaking efforts; but the by-laws he considered altogether too voluminous and complicated to be made practicable in the hands of any President unless he gave great study to them.

After further discussion,

Dr. Campbell said that it had always been impossible for the Council to give time enough to prepare by-laws itself, and the subject had been referred to a Committee. It was better to have rules, even imperfect ones, than no rules at all.

It was agreed that the Council should go into Committee on the by-law to-morrow afternoon.

MEDICAL EXAMINERS.

Dr. Allison moved,

That in consequence of the extreme dissatisfaction that exists among the members of the profession with the manner in which the examiners are appointed, it is expedient that in future no member of the Council shall be appointed to the office of medical examiner, but that all appointments to that office shall be made from among the registered members of the profession outside the Council.

Dr. Aikins said that if this motion passed it would be a censure on every member of the Council who had been an examiner. Some years ago, several examiners had given 100 per cent. (the maximum) to every pupil.

Dr. Grant considered the proposition as absurd. There was no need of a change. The position of examiner was called a lucrative one, but he thought it was anything but that.

Dr. Wm. Clarke observed that if they did their work properly, the $100 each was the dearest earned money the examiners ever got. (Hear, hear.)

Dr. Brouse, as the representative of a territorial district, was opposed to the motion, and he hoped Dr. Allison would submit with his usual grace to have it voted down.

Dr. Macdonald denied that there had been any corrupt doings under the present system. It was a mistake to say that this Council were entirely responsible to the medical profession. They had a higher responsibility, viz., to the public. (Hear, hear.)

Dr. Herriman said there were as good men outside of the Council as in it, and as fit to be examiners. If they were outside persons the students would then have an independent body in this Council to appeal to, which they had not now. In his election this was made a test question, and because of his views he was elected by a large majority, thus showing the feeling among the outside profession. If there were honours in the positions why not distribute them?

Dr. Wm. Clarke remarked that whether this motion were passed or not there would still be some examiners whose positions would not be affected, as they were appointed by Act of Parliament.

Dr. Daniel Clark admitted that there was some force in the remark that the Council would be an independent Court of appeal under another system, but the proportion of examiners appointed by the Council was too small to affect their decision. Moreover, there had only been one single appeal against the examiners during the past thirteen years. He thought the best men outside or inside of the Council should be appointed, but the Council should have something to say in the matter.

Dr. Ross said he had voted for Dr. Allison's motion last year, but he was going to vote against it now.

Dr. Edwards believed that they could not do better than appoint the examiners from themselves.

Dr. Bethune spoke in opposition to the motion.

Dr. Henwood, as a territorial representative, was also opposed to it, and he believed the majority of his constituents were also. It was better that teachers should examine students than ordinary practitioners, no matter how high their attainments might be.

Dr. Lavell said many men simply desired to become examiners, with a view of gaining personal distinction thereby, and without having the slightest qualifications for the position. The only security, therefore, to the profession and the public was in the Council appointing the best men wherever found.

Dr. Geikie spoke in a similar strain.

The motion was then put and lost, only three voting for it.

PROVIDING ACCOMMODATION.

Dr. AIKINS, seconded by Dr. WM. CLARKE, moved :—

That a deputation, consisting of the undernamed members of Council, do wait upon the Honourable Attorney-General, at his departmental office, this day at four o'clock, to request aid from the Government of Ontario towards the erection of a proper building for the College of Physicians and Surgeons of Ontario :— Drs. Aikins, Daniel Clark, W. Clarke, Geikie, Brouse, and Ross, with the official members.

Dr. AIKINS presented the Treasurer's report for the past year. The leading features were :—

RECEIPTS.—Balance on hand last year, $5,208, 14 ; Dr. Pyne, Registrar, $1,319 75 ; the matriculation examination fees, $861 40 ; professional examination fees, $5,910 ; interest, $79 64 ; sundries, $50 ; total, $13,428 93.

DISBURSEMENTS.—Expenses of last meeting of Council, $1,208 30 ; accounts, $1,111 29 ; expense of Executive and sub-Executive Committee meetings, $534 30 ; salaries, $1,000 ; expenses of April examinations, $1,151 23 ; balance in Bank of Commerce, $8,423 81 ; total, $13,428 93.

It was recommended that the number of members on the Executive Committee be reduced, and that members at a distance be not placed on.

The report was referred to the Finance Committee.

AN OMITTED NAME.

Dr. LOGAN, seconded by Dr. W. CLARKE, moved,

That Dr. Chaffey's case be referred to a Special Committee for investigation, consisting of Drs. W. Clarke, D. Clark, Edwards, Morrison, and the mover.

Some time ago it was agreed to hold a special examination for certain persons in this Province, and a gentleman named Dr. Chaffey was not notified.

The motion was carried.

THE ELECTORAL BY-LAW.

Dr. ALLISON, seconded by Dr. MCLAUGHLIN, moved,

That leave be given to bring in a by-law to amend the electoral by-law of 1874.

The motion was carried, and the by-law was passed through every stage and became law. The by-law abolished the requirement that those voting at elections for members of the Council shall be compelled to make their declaration before a Justice of the Peace.

AN ADDRESS TO LORD DUFFERIN.

Dr. GRANT, seconded by Dr. BROUSE, moved,

That an humble address be presented by the College of Physicians and Surgeons of Ontario to His Excellency Lord Dufferin, on the occasion of his departure from Canada ; and that a Committee consisting of Drs. D. Clark, W. Clarke, McDonald, Berryman, with the mover and seconder, be a Committee to frame the same.

The Council adjourned for an hour, during which time the Special Committees were in session.

THE DEPUTATION.

At four o'clock, in accordance with the resolution passed by the Council, a deputation waited on the Attorney-General. They were received by that gentleman and the Hon. Adam Crooks.

The ATTORNEY-GENERAL promised to give the matter his serious consideration, and to consult with the Senate of the University about the proposal.

The Council re-assembled at five o'clock, and confirmed the minutes of the previous part of the session.

The PRESIDENT reported the result of the interview with the Government.

The report of the Special Committee appointed to examine the minutes of the Executive Committee was presented and adopted.

Dr. BROUSE, seconded by Dr. GRANT, moved :—

That in the opinion of this Council the time has arrived to secure a permanent bnilding for its use, that a Committee be appointed to take the necessary steps for such, and that any arrangement the Commiteee may make shall be binding on this Council ; the Committee to consist of Drs. Allison, Aikins, D. Clark, W. Clarke, and the President.

The mover said there was a valuable lot to be had, and centrally situated ; and he thought the Government, besides giving the buildings, should allow a sum of money towards the construction of the same.

The names of Drs. Ross and Berryman were added to the motion, which was carried, only two members dissenting.

The Council adjourned till eight o'clock.

The Council re-assembled at eight o'clock p.m. Dr. Allison, Vice-President, occupied the chair.

Dr. HENWOOD presented a statement containing a schedule of fees to be charged in the counties of Brant and Haldimand.

It was referred to the Registration Committee.

Dr. MCLAUGHLIN presented the report of the Committee appointed to consider the advisability of adopting an intermediate examination in lieu of the matriculation examination.

The report, which recommended the Council not to make the proposed change, was adopted.

A number of accounts were presented and referred to the various committees, after which the Council adjourned till ten o'clock on Thursday morning.

THIRD DAY—MORNING SESSION.

The proceedings opened at ten o'clock.

Dr. BETHUNE, on behalf of the Registration Committee, presented a report, recommending that the tariff of fees for the counties of Brant and Haldimand be adopted; that the requests of S. G. Robinson, J. B. Baldwin, and J. S. Campbell for permission to practise be not granted, as contrary to the Medical Act; that the case of Dr. Bomberry, an Indian, and a graduate of McGill College, who desired registration in Ontario, receive the favourable consideration of the Council; that Dr. Mallory's request for registration be not granted until he comply with the requirements of the Medical Act; that Dr. Comfort be protected from prosecution till next examination; that Dr. Drummond, of Jamaica, West Indies, who applied for registration in the Dominion under a misapprehension of the terms of the Medical Act, be communicated with by the Registrar, and be furnished with a copy of the Medical Act; and that the report of the Public Prosecutor be referred to the Finance Committee.

The Council went into Committee on the report on Dr. Bomberry's case.

Dr. BETHUNE explained that he only desired to practise among the Indians, and that he desired to be protected from prosecution. He had been prevented from attending the last examination by illness.

On motion it was agreed that Dr. Bomberry be granted a special examination.

The other clauses of the report were adopted in Committee and in Council.

RECIPROCITY IN REGISTRATION.

The PRESIDENT stated that he had received a letter from the Registrar of the General Medical Council of Great Britain, embodying a copy of the minutes of that Council, a copy of the British Medical Act, and other documents. He inferred from the communication that the British Council would be quite ready to interchange registration with Canada.

The communication was referred to the Registration Committee.

The PRESIDENT, having left the chair, moved the following resolutions:—

1. Resolved—That the President of the College of Physicians and Surgeons of Ontario be authorized to inform the Registrar of the General Medical Council of Great Britain that his certificate of registration to practise both medicine and surgery in Great Britain will be accepted by the Council of the College of Physicians and Surgeons of Ontario, as constituting a sufficient title to registration in the Ontario Medical Register whenever the Registrar of the General Medical Council of Great Britain notifies our Registrar that he is prepared to accept the certificate of registration in the Medical Register of Ontario as a sufficient title to registration in both medicine and surgery in the Medical Register of Great Britain; and that such registration shall be allowed in Great Britain upon the same terms of payment as required in Ontario, namely, two pounds sterling.

2. Resolved—That the Council of the College of Physicians and Surgeons of Ontario recognize the force of the principle enunciated by the "Medical Acts Committee" of the General Medical Council of Great Britain, that "while freedom of choice as to places of study ought to be open to all, the Committee would think it inadmissible that British students, intending to practise in the United Kingdom, should have the option of undergoing in any other country than their own the examinations which are to test their fitness for practice"; therefore, applying the same principle to Ontario students as is applied by the General Medical Council of Great Britain to British students, the Council of the College of Physi-

cians and Surgeons of Ontario consider it inadmissible that Ontario students, intending to practise in Ontario, should have the option of undergoing in any other country than their own the examinations which are to test their fitness for practise, and that the recognition of registration in the British Medical Register shall not be held to exempt from the examinations established by the Council of the College of Physicians and Surgeons of Ontario any one who had begun his medical studies at any of the medical schools in Ontario, or who could have been properly considered as a resident in Ontario before the commencement of his medical studies.

3.—That all such students from Ontario as are referred to in the foregoing resolution shall be required to pass at least the "final" examination of this Council, and shall pay the usual examination fees therefor.

4.—That the President be authorized to request the Directors General of the Army and Navy Medical Department of Great Britain to recognize registration as a member of the College of Physicians and Surgeons of Ontario as constituting a sufficient qualification for candidates to present themselves for examination as surgeons before their respective Medical Boards.

The Council went into Committee on the resolutions.

Dr. DANIEL CLARK did not think it would be advisable, in the present condition of their negotiations with the medical authorities in Great Britain, to adopt them. If they went before the Medical Council in a dictatorial tone, he felt sure from the tone of the English medical journals that their proposition would be politely kicked away. It would be much better to bide their time, and the reciprocity of registration would come.

Dr. MCLAUGHLIN agreed with the last speaker, more especially as Canada would not be injured by the delay. It was not Canada, but England, that would be benefitted by reciprocity of registration, and the latter would ultimately find that out.

Dr. ALLISON said another reason for delay was that a Medical Bill was at present before the English House of Lords, and it would be better to wait till it was passed.

Dr. CAMPBELL said the gentlemen who had spoken were acting under a misapprehension. His object was that young men, simply with University degrees, going to England should not ignore this Council. He had written to the Registrar of the British Medical Council, calling attention to the evil.

Dr. DANIEL CLARK asked who gave Dr. Campbell authority to write that letter.

Dr. CAMPBELL said he gave himself the authority.

Dr. DANIEL CLARK said Dr. Campbell had assumed, shortly after his (Dr. Clark's) election as President, to act as though he were President of this Council, and he had written letters without his authority.

Dr. CAMPBELL said the members did not evidently comprehend the danger of the evil against which he was acting.

Dr. WM. CLARKE thought the act of Dr. Campbell in writing that letter was a monstrous assumption. He contended that no member should dare to do anything on behalf of this Council without authority from the Executive Committee.

Dr. LAVELL would be prepared at the proper time to move for reciprocity of registration, but medical affairs in England were now in a transitional state. He was not prepared to stand any snubbing from the English Council, or to go as a suppliant, knocking at their door.

Dr. BETHUNE moved that the resolutions should be laid over till the next meeting of the Council.

Dr. Bethune's motion was carried, and the Committee reported to the Council, which adopted their report.

INSUFFICIENT REGISTRATION.

Dr. DANIEL CLARK moved,

That no registration of persons alleging to having been practitioners before 1850 shall be permitted to take place until the credentials of such applicants have been examined by the Council or Executive Committee, and the sanction to register given in the same to the registrar.

He observed that clergymen and others sometimes felt themselves qualified to practise on the ground mentioned in the motion, and his object was that they should not be permitted to do so unless properly qualified in terms of the Medical Act.

Eighteen had been registered in this way, two being homœopaths and three eclectics.

On the suggestion of the President, Dr. Clark added to his motion the words, "and this clause refers to section 23, sub-section 2, of the Ontario Medical Act."

The motion was then carried.

BURSARIES FOR STUDENTS.

Dr. DANIEL CLARK moved,

That three bursaries of $60, $40, and $20, respectively, be given at the final examination to those three students who obtain the highest marks in any four subjects which may be decided upon by the Council.

Dr. AIKINS thought it would be well to conserve their funds if they were going to enter on a building project.

The PRESIDENT pointed out that the Council had not the power to establish competitive examinations.

Dr. CLARK withdrew the motion.

The Council then adjourned till one o'clock.

VISIT TO THE HOSPITAL.

At one o'clock several of the members of the Council drove to the General Hospital, and were received by Dr. O'Reilly, the resident medical officer of the institution.

On the Council reassembling at the City Hall,

The minutes of the proceeding session were read and confirmed.

Dr. BETHUNE presented the

REGISTRATION COMMITTEE'S REPORT,

Which recommended that Dr. Nevitt, Dr. Comfort, and Dr. Chaffey be allowed a special examination at the same time as that of Dr. Bomberry.

The Council went into Committee of the Whole on this report.

Dr. W. CLARKE entered a protest against the principles of special examinations as being derogatory to the profession generally; he held that those who wished to practise should go before the Board in the usual way.

Dr. CAMPBELL agreed with the remarks of the last speaker, but he moved that Dr. Nevitt be placed upon the list.

Dr. CLARK maintained his objection on the ground that special examinations were illegal, and were not contemplated by the Act, and therefore, could not be recognized by the profession.

A desultory discussion followed, during which Dr. Clark quoted the Medical Act in support of his argument, *i.e.*, that candidates for admission to practise must go before the full Board for examination. He held that such an examination was a *sine qua non* to the admission to general practice.

Dr. BERRYMAN held that some charity should be extended to those who wished a special examination, and he strongly argued in favour of that privilege being granted.

That section of the report was finally adopted.

Several questions as to the admission of graduates of Lower Canadian Medical Colleges to practise in Ontario were discussed, notably the case of Dr. Fresette, who sought to be admitted by passing the final examination by the Board in Ontario.

Dr. CAMPBELL supported the claim of Dr. Fresette.

The application of Dr. Fresette was refused unless he chose to comply with the terms of the Ontario Medical Act.

The report was discussed in Committee of the Whole, Dr. Macdonald in the chair.

On Dr. Campbell assuming the Presidency of the Council,

Dr. GRANT then moved, seconded by Dr. McLAUGHLIN,

That it is the opinion of the members of the College of Physicians and Surgeons of Ontario that the matters pertaining to medical education should, as far as possible, be reduced to one uniform basis for the entire Dominion in order to simplify rules and regulations and set aside any Provincial jealousies which may exist, and thus make our profession a unit from the Atlantic to the Pacific; also that in consultations the greatest possible latitude should be extended to professional gentlemen of well-recognized ability in the neighbouring Republic, thus exercising that known liberality which is in keeping with the progress and scientific advancement of the present time.

He moved the present resolution to place on record his conviction that the best interests of the medical profession would be subserved by the formation of a "Dominion Board," in order to simplify the work of the profession.

The best interests of the profession are now clashing, and difficulties exist which by a greater degree of uniformity in medical matters might be very much benefitted. The subject of sanitary science is now under the same difficulty—medical and sanitary matters are purely under the control of the Local Legislatures. The powers granted by the Dominion Act are not to be disturbed without serious consideration, yet, he felt satisfied, that if an expression of opinion emanated from the whole body of the profession an influence for good in the direction indicated might be exercised. No doubt some time must elapse prior to carrying into operation a central medical examining body and sanitary bureau at Ottawa. The interests of the various Provinces are the interests of the Dominion as well, and such measures should be advocated as will at the same time simplify and strengthen the operation of medical and sanitary legislation.

After some discussion, Dr. AIKINS moved, seconded by Dr. BERRYMAN, "That the consideration of the resolution be deferred for six months."

Dr. CLARKE expressed his opinion that that was the best course to adopt.

Dr. BROUSE then pointed out the importance of establishing a Bureau of Health, and spoke of the efforts he had put forth in the House of Commons towards getting an appropriation for that object. He thought Dr. Grant deserved credit for bringing forward the resolution.

Dr. Grant's motion was then put and declared lost.

Dr. ALLISON moved, seconded by Dr. McLAUGHLIN,

That with a view of lessening the expenses of the Council and Executive Committee it is deemed expedient that not more than seven members of the Council do constitute said Committee.

After some discussion, Dr. HYDE in some terse remarks expressed his opinion that it would be to the advantage of the profession that the resolution should pass. There were too many on the Council and the Committee as it was.

Dr. EDWARDS (of London) moved in amendment, seconded by Dr. BETHUNE, "That the Executive Committee consist of nine members, two of the nine to be *ex-officio* members.

The amendment was then put and declared carried.

Dr. AIKINS moved, seconded by Dr. BROUSE,

That Drs. Campbell, Allison, Daniel Clark, Wm. Clarke, Berryman, Macdonald, Aikins, Lavell, and Geikie be members of the Executive Committee. Carried.

Dr. AIKINS asked if the Committee had power to add to their number?

The Chairman ruled in the negative.

It was moved by Dr. BERRYMAN, seconded by Dr. BROUSE,

That the members of this Council having proceeded to the Toronto General Hospital, in accordance with an invitation of the House Surgeon, Dr. O'Reilly, would report by resolution—That they found the wards and all their appurtenances in most excellent and efficient order, the improved condition of ventilation being remarkable. While expressing our deepest sympathy and heartfelt interest in the general welfare of such a valuable institution, we, as a body corporate, would, by this resolution, beg to express our thanks on behalf of the profession to the donating Trustees and others who have so nobly assisted that institution, and further the efforts of those so kindly assisting have been so ably carried out by our present efficient resident officer, Dr. O'Reilly. This Council would at the same time earnestly press on the attention of the Ontario Government the necessity of their immediate or earliest assistance in such a noble work—by such an enactment as may to them seem best—for the relief of the poor, the sick, and distressed, thereby emulating the voluntary and handsome donations of private charity.

The resolution was carried unanimously.

Dr. LAVELL gave notice that to-morrow he should move, seconded by Dr. G. D. McLAUGHLIN, that a Board of Audit be appointed *in re* the expenditure of the funds of the Council.

The PRESIDENT said that the motion was in effect most discourteous to him, and when it came up for discussion he should take occasion to express himself regarding it.

It was moved by Dr. Ross, seconded by Dr. CLARKE,

That in the opinion of this Council the time has now arrived when the General Hospitals now in operation in Ontario, and such as shall hereafter be established, should be placed upon a Governmental basis similar to that provided

for our Insane Asylums, so as to give an assurance to the sick poor in our midst that their wants and applications are duly respected, and also to equally distribute the onus of their support over the whole community and that we do earnestly recommend our professional brethren throughout the whole country to urge upon the individual legislators, and through them upon the Legislature, the absolute neces nity which does exist for such provision being made.

The resolution was carried.

The Council then adjourned till 8 p.m.

The Council reassembled at 8 p.m., when the President, Dr. Campbell, took the chair.

The roll having been called and the minutes of the last meeting read and confirmed,

Dr. BETHUNE moved, seconded by Dr. DANIEL CLARK, that the Council do adjourn until ten o'clock to-morrow in order to give the committees an opportunity to get through their work. Carried.

The Council adjourned accordingly.

FOURTH DAY.

The President took the chair at 10 o'clock.

ADDRESS TO LORD DUFFERIN.

Dr. GRANT, on behalf of the Special Committee appointed to draft an address to Lord Dufferin, on the occasion of his departure from Canada, reported a form for adoption by the Council.

The address was adopted, and on motion ordered to be engrossed, and Drs. Grant and Brouse were appointed a deputation to present it to His Excellency.

SPECIAL CASES.

Dr. LOGAN, on behalf of the Special Committee in the case of Dr. Chaffey, recommended that he be allowed a special examination before the Board of Examiners.

Dr. WM. CLARKE moved the adoption of the report.

Dr. BROUSE moved that as Dr. Chaffey had left the Province he should be protected in case he should practise in Ontario during the ensuing year.

Dr. D. CLARK pointed out that the Council had not the power to protect any man from prosecution. That would be overriding the statute, which they could not do.

The report was adopted.

Dr. AIKINS moved,

That the following be an Examining Board for conducting to-day the special examinations:—Dr. William Clarke, surgery and surgical pathology; Dr. Ross, midwifery; Dr. McLaughlin, anatomy; Dr. Morrison, chemistry; Dr. Macdonald, medicine; Dr. Berryman, materia medica; Dr. Edwards, physiology; Dr. Logan, medical jurisprudence.

The motion was carried, and it was agreed that the examinations should be held in the afternoon.

FINANCE COMMITTEE.

Dr. HYDE presented a report of the Finance Committee. It stated that the Committee had found the Treasurer's book to correspond with the vouchers; and that the balance of $8,425 81 stood to the credit of the Council in the Canadian Bank of Commerce. The Committee was gratified to report that the Registrar had strictly complied with the instructions given for his guidance. He had collected on assessment of registered practitioners only $281, and the Committee recommended that active steps be taken to collect the arrears. Mr. Wood, of Kingston, the matriculant examiner, it was reported, was still in arrears to the extent of $225 97, and the Committee recommended that matriculation fees be hereafter paid to the Treasurer, and that the other accounts in connection with the examinations should be sent directly to him. Several accounts were recommended to be paid:—"Dr. Campbell's accounts for preparing by-laws, register, annual announcement, &c., amounting to $282 50, we also submit for your consideration, as we can find nothing in the minutes of the Council, or the Executive Committee, or any President's order, authorizing him to do the work. We are of the opinion that the above is part of the duty of the Registrar."

The Council went into Committee on the report, and took up the different clauses *seriatim*.

On the clause regarding the collection of assessments, some discussion took place as to

whether it was the duty of the Registrar, or the Public Prosecutor to collect the money.

The REGISTRAR explained the causes of the arrears, and stated that he had no doubt he could easily collect the most of them. The illness of the Prosecutor, Mr. Smith, had caused some confusion in the collection of the assessments.

After discussion, the clause was adopted, and it was agreed that Mr. Smith be heard before the Finance Committee.

On the item of Dr. Campbell's account,

Dr. D. CLARK said this was a serious matter. It was the beginning of a system which there would be no end to if they did not put a stop to it. Every member of the Council who incurred expenses without the authority of the Council should be held personally responsible. He moved that the item be expunged.

Dr. AIKINS said they should first have the facts of the case. Dr. Campbell was one of three of a sub-committee appointed last year by the Executive Committee to have the announcement properly printed. Dr. Campbell on the suggestion of Dr. D. Clark and himself, who were endeavouring at the last session of the Ontario Legislature to obtain the passage of an Anatomy Act, also was asked to draw up two or three short clauses, and on that authority had drawn up an elaborate Act. There were the facts in favour of Dr. Campbell's accounts. He regretted, however, that accounts like these should be brought up year after year by Dr. Campbell, who took it upon himself to act in opposition to the general wishes of the Council.

Dr. ALLISON thought the Council ought to hear a statement from Dr. Campbell.

Dr. GEIKIE took the same view. He testified from his own personal knowledge that Dr. Campbell had been most indefatigable both with regard to the Anatomy Bill and the Register.

Dr. MCLAUGHLIN moved that each of the items of Dr. Campbell's account be taken up *seriatim*.

This motion was carried. On the item, "Preparing Anatomy Bill, $100,"

Dr. CAMPBELL stated that he had not received any formal legal authority from Dr. Aikins, but Dr. Aikins had told him there was an urgent necessity for having a Bill embodying regulations for having proper examinations in anatomy. He had in drawing up the measure examined Bills of many of the United States, and he had been complimented by American medical gentlemen upon it. If there had been a meeting of the Executive Committee to draft this Bill the cost would have been $120, whereas the present cost was $100, $20 being saved to the Council.

Dr. WM. CLARKE contended that the Committee had no right either to save or expend money without the authority of the Council.

Dr. Ross thought every member of this Committee was responsible with Dr. Campbell.

Dr. MCLAUGHLIN remarked that if they allowed this unauthorized account to pass they would be having their rules violated every year. He moved that the item be expunged.

Dr. AIKINS said he was prepared to assume whatever responsibility was proper with Dr. Campbell, but he was not prepared to assume any share of the expense of that elaborate Bill, after Dr. Baxter had explicitly informed them that nothing but three or four short clauses could be expected to pass.

Dr. McLaughlin's motion was lost.

On the item of "Improving and attending to the printing of the Bill to amend the Ontario Medical Act, $50,"

Dr. CAMPBELL said he had the authority of the Executive Committee to take charge of this Bill. He had got 2,000 copies of the Bill printed and personally addressed them to every member of the profession in Ontario asking for suggestions.

Dr. D. CLARK would be willing to grant Dr. Campbell an amount in view of the trouble he had taken, but not as a matter of right. It would be a precedent which would destroy their funds entirely. He moved that the item be not paid.

Dr. Ross, Dr. Herriman, and Dr. McLaughlin took a similar view, holding that they should not allow their rules to be violated. The item was sustained on a vote. On the item "Supervising annual announcement, $30,"

Dr. CAMPBELL said the Executive Committee had distinctly authorized this expenditure.

Dr. Wm. Clarke contended that the Executive Committee had no right to incur expenditures and order the Treasurer to pay them.

It being one o'clock the Committee rose and reported progress.

The Council re-assembled at half-past two o'clock, the President, Dr. Campbell, in the chair.

The Secretary having called the roll, the minutes of the morning session were read and confirmed.

After some discussion, the report of the Special Committee on Dr. Chaffey was referred back to the Committee for reconsideration.

Dr. Grant presented the report of the Education Committee.

Dr. Aikins took exception to the presentation of the report of a Committee many of the members of which had not been summoned to attend the meeting, at which the said report was drawn up.

Dr. Lavell coincided with the remarks of Dr. Aikins, as did also other gentlemen.

A considerable amount of discussion took place upon this point. Finally it was read by Dr. Grant, and treated chiefly of the details of the curriculum laid down for students.

The report was sent back to the Committee.

Dr. Cornell presented the report of the Printing Committee. It simply recommended the payment of sundry accounts, and was referred to the Committee on Finance.

The Council then went into Committee of the Whole, Dr. Macdonald in the chair, on the unfinished report of the Finance Committee, when several accounts for printing were passed. The report stated that twenty-two fines had been inflicted on unregistered practitioners and that many of them had not been paid to the Registrar.

With reference to the claim of Dr. Campbell upon the Council,

Dr. W. Clarke moved, seconded by Dr. D. Clark, that the report of the Finance Committee be amended by the payment of $170 to Dr. Campbell in lieu of all claims by him against the Council, and this is paid as a testimony of the services rendered by him to this Council. Carried.

Dr. W. Clarke moved that the Treasurer be authorized not to pay any money without the bills of the same having been presented to and passed at the annual meeting of the Council. Carried.

Dr. D. Clark moved, seconded by Dr. McLaughlin, that no debts shall be contracted or money spent on behalf of the Council without the consent of the Executive Committee, and that this Council will not hold itself responsible for any debts contracted without the consent of said Committee. Carried.

The report of the Education Committee was then submitted to the Council in Committee of the Whole, Dr. Macdonald in the chair. It was discussed clause by clause and adopted. It provided that the examinations should take place in Toronto and Kingston alternately in April and August—in Toronto in April and in Kingston in August. The remainder of the report was a mere matter of detail with reference to medical education generally, fixing the time of study to forty-eight months from the date of matriculation, this arrangement to come into effect after the 1st of April, 1879.

The Examiners appointed were—Materia Medica and Sanitary Science, Dr. Berryman; Anatomy, Descriptive and Surgical, Dr. Sullivan; Medicine, Medical Pathology, and Medical Diagnosis, Dr. Kennedy; Midwifery and Diseases of Women and Children, Dr. Thorburn; Chemistry, Theoretical and Practical, Dr. Morrison; Surgery and Surgical Pathology, Dr. Malloch; Physiology and Histology, Dr. Pickup; Medical Jurisprudence and Toxicology, Dr. Henderson; Homœopathic Examiner, Dr. Vernon.

The Council then adjourned until 8 p.m.

The Council reassembled at eight o'clock, when the minutes of the afternoon session were read and confirmed.

Dr. Bethune presented the report of the Registration Committee, and the Council went into Committee of the Whole to consider it. The tariff of the St. Lawrence and Eastern Division was objected to by the Committee as being too high. Some of the items were read, and characterized by the Council as being excessive. The tariff was sent back to the Association. The report went on to recommend

that the name of the Rev. Jas. Edgar be not placed on the Register on the ground that the certificate testifying to his having practised before the year 1850 was not signed by the whole of the members of the eclectic body.

A long discussion took place upon the matter, and it resulted in Dr. McLaughlin moving that Mr. Edgar's name be expunged from the Register.

Dr. W. Clarke moved in amendment that the removal of Mr. Edgar's name from the Register be postponed until the law officer of the Council had been consulted.

Dr. Berryman did not object to clergymen who were on missionary service practising medicine, but in the Rev. Mr. Edgar's case, as that gentleman was in their very midst, he entered his protest against his name being on the list, and he approved of the sentiment of the resolution.

The motion was put and carried.

The other items in the report having been passed and adopted,

Dr. Campbell then addressed the Council *in re* the tariff, and he moved the following resolution, which was seconded by Dr. Lavell :—

That every member of the College of Physicians and Surgeons of Ontario, if summoned to give professional evidence at any inquest, criminal trial, or investigation of a criminal nature, shall, upon the Coroner, Judge, Police Magistrate, Justice of the Peace, or other judicial officer presiding at such inquest, trial, or investigation, certifying that the evidence of such member was important, or likely to have been important, at such inquest, trial, or investigation, be entitled to charge the sum of five dollars for giving such professional evidence, together with five dollars for each day's, or part of a day's necessary attendance or detention during the time such inquest, trial, or investigation was held, including among such days the time necessary for travelling from and to his usual place of residence, to and from the place where such inquest, trial, or investigation was held, and twenty-five cents for each mile of distance so travelled; and that a copy of this resolution be forwarded to the Chairman of every territorial division in Ontario, with instruction that every member of the College in their division be guided by this scale of fees.

The general impression was that the resolution was premature, and, on being put to the meeting, was lost.

The report of the Executive Committee, which contained all the minutes of the meetings, was adopted.

It was moved by Dr. D. Clark, seconded by Dr. Henwood, "That all the new Register, except the list of names of medical men said to be registered, shall be sanctioned by the Council, but that the new Register shall not be published until this list has been revised and examined at the first meeting of the Executive Committee." Carried.

It was then moved by Dr. Ross, and seconded by Dr. Hyde, "That that portion of the resolution proposed by Dr. Morden and seconded by Dr. Edwards in June, 1876, and passed by this Council, which refers to the Public Prosecutor, directing that he should collect the annual dues, be cancelled, inasmuch as it is contrary to the intent and meaning of clause 27 of the Ontario Medical Act." Carried.

The report of the Finance Committee was then read and adopted. It recommended the payment of sundry accounts, but disallowed an item of $10 25 cab hire for Dr. Campbell during the present session.

The report was then adopted.

On motion, Drs. Berryman, Kennedy, Morrison, and Thorburn were appointed to conduct the examinations of the candidates who will present for special examination, the Board appointed in the morning to be cancelled. The examinations to take place in the City Hall, and to commence at 10 o'clock a.m.

A number of routine resolutions were then passed, having reference chiefly to the internal economy of the College.

The Committee appointed to inquire into Dr. Chaffey's case recommended that he be permitted to appear before the Examining Board at any time.

It was decided to take legal steps to defend the Council in the action brought against it by the electro-therapeutic practitioners.

The question of Dr. Campbell's claim again came up.

Dr. Wm. Clarke said that the sum was in full satisfaction of all claims against the Council.

Dr. Campbell declined to accept the $170 granted him, stating that it was writing himself down a thief, as it would be taking money that the Council evidently thought he had not earned. He had paid more than that out of his own pocket, and he considered that he should be paid his full account. He firmly declined to accept the money.

A vote of thanks was passed to the Senate of the University of Toronto, and Queen's College, Kingston, for the accommodation afforded the Council.

On the motion of Dr. BERRYMAN, seconded by Dr. BETHUNE, a vote of thanks was passed to the Mayor and Corporation for their kindness in allowing the Council the use of the City Hall for its meetings, and the President and Dr. Berryman were appointed a deputation to present the same at the next meeting of the City Council.

Dr. Aikins was again appointed Treasurer, and Dr. Pyne, Registrar, for the current year.

In urging the increase of salary to the Registrar it was mentioned that the amount was inadequate to the duty performed, and suggested that $1,000 be appropriated instead of $750.

The Registrar stated that on condition that an assistant be appointed to aid him during the Examination he would desire his stipend to remain as heretofore.

After disposing of some routine business the Council adjourned *sine die*.

COUNTY OF BRANT MEDICAL ASSOCIATION.

A special meeting of the above Association was held in the Kerby House, Brantford, on Monday, June 10th.

The members present were :—Drs. Philip (President), Burt (Vice-President), Harris (Sec'y-Treasurer), Dickson, Dee, Griffin, Digby, Marquis, Clarke, Henwood, Sinclair, O'Reilly, Carson, and Healy.

Dr. Griffin moved, Dr. Clarke seconded, That Dr. Dee be requested to prepare a paper for next regular meeting; and that the consideration of Dr. Sinclair's paper be then taken up.—Carried.

Dr. Griffin moved, Dr. Marquis seconded, That the Brant County Medical Association are of the opinion that the establishment of a Provincial Medical Association for Ontario, with City and County branches similar to the State and County Medical Associations in the United States, would be attended with many benefits to the profession and to the public; and express the hope that the initiatory action taken recently by the Erie and Niagara Divisional Association will lead to the establishment of such an Association.—Carried.

Dr. Griffin moved, Dr. Sinclair seconded, That in the opinion of this Association "Contract Practice," except in so far as it relates to Government situations and Charitable Institutions, is not expedient in the interests either of the profession or the public.

It is therefore further resolved that the members of this Association will not hereafter engage in such practice except for such time as may be necessary to terminate any existing engagements.—Carried.

Dr. Dee moved, Dr. Healy seconded, That this resolution be published in the *Canada Lancet* and CANADIAN JOURNAL OF MEDICAL SCIENCE.—Carried.

The Society then adjourned to meet again at Brantford on the first Tuesday in September.

W. T. HARRIS, Secretary.

Mr. Spencer Wells has recently removed a solid uterine fibroma weighing seventy pounds. The tumour was enucleated from between the two layers of the right broad ligament, and was attached to the posterior surface of the uterus, which was normal in size, and from which it had to be separated by cutting. After enucleation the two opposite sides of the capsule of broad ligament were brought together behind the uterus and stitched up by twenty points of fine silk suture, thus shutting off the lacerated cellular tissue from which the tumour had been torn from the cavity of the peritoneum proper. The right ovary, although healthy, was removed for the reason that the Fallopian tube and broad ligament on that side had been torn in the removal of the tumour. There were also broad and strong attachments in various directions requiring division by the knife. The external wound required twenty-five silk sutures for its closure. But little blood was lost, considering the great size of the tumour, and the extent of the adhesions. The operation which was undertaken as an exploratory incision to decide the possibility of the removal of the growth, occupied just an hour, and the patient made an excellent and rapid recovery. Altogether the operation is one of the most remarkable on record, and is well worthy of notice as illustrating the possibilities that may be attained in the removal of abdominal growths.

Miscellaneous.

Oxide of Zinc is recommended as a specific for the tremor of chronic alcoholism.

For Freckles.—Take finely powdered sulphophenate of zinc 1 part, oil of lemon 1 part, pure alcohol 5 parts, collodion 45 parts, mix well.

Proportion of Physicians to the Population.—United States, 1 in 600; France, 1 in 1814; Great Britain, 1 in 1672; Germany, 1 in 3000; Austria, 1 in 2500; Canada, 1 in 1193.

Treatment of Shingles.—In *Herpes Zoster*, Dr. Amedée Mercier speaks highly of perchloride of iron locally, he uses 30 grammes of the perchloride of the codex and 10 grammes of alcohol and applies it twice, daily.

Montreal General Hospital.—W. Osler, M.D., L.R.C.P., London, has been elected Attending Physician to the Montreal General Hospital, in the place of Dr. Drake, who has been appointed to the consulting staff.

Canadians in England.—J. E. Eakins, M.B., Newburg, Ont., A. E. Mallory, Cobourg, Ont., W. D. Robertson, M.D., Montreal, have obtained the license of the Royal College of Physicians, Edinburgh, and the Royal College of Surgeons, Edinburgh.

Trichinæ in the Flesh of Geese.—Sixty soldiers of the garrison of Thornville lately fell sick of trichinosis, and two of them died. It has been ascertained that the disease arose, not from pork, but from the flesh of geese which they had eaten.

Retroflexion of the Uterus in the Newly Born.—Carl Ruge reports (*Leitschrift für Geburtsh U. Gynäkologie*) two cases in which this condition was discovered in the newly born. No cause for the flexion could possibly be discovered.

Bromine as a Remedy for the Eruption of Poison Oak, Ivy, and Sumach.—Dr. S. A. Brown, U. S. N., believes that bromine is a specific for the above eruptions. He uses from ten to twenty drops, dissolved in olive oil or cosmoline, and rubs it gently on the affected part three or four times a day. The solution should be freshly prepared, as the bromine is very volatile.

Treatment of Favus.—Sawicki uses a paste of pulverized chalk or gypsum containing 5–10 per cent. of carbolic acid. This is applied all over the head after cutting the hair short. On the third day the dressing is removed, the head washed with soft soap and water, and the paste reapplied. A little oil may be added to render the dressing more pliable. It is said to effect a cure after three or four applications.

Structure and Development of Spermatozoa.—A. Menzel, in a paper read before the sixth Congress of German Surgeons, states that he has made a series of researches on the milky fluid taken from a spermatocele, with the following results:—(1) The spermatozoa of man exhibit, under certain circumstances, a very distinct transverse striation. (2) The sperm-cells of man exhibit very lively movements and also a disposition to throw out long filiform processes. (3) The seminal animalcules proceed without exception in man from the nucleus, never from the cell protoplasm.

Urethritis Produced by Arsenic Internally.—Dr. Saint Philippe describes certain urethral complications due to arsenic administered internally. He cites two cases, in one four millegrammes were given for intermittent fever, and followed next day by the usual symptoms of arsenical poisoning, and in addition by an acute urethritis. It was stated that the man had not had connection for two months before. In the second case the patient, who had psoriasis, took by mistake double the dose prescribed, and was similarly affected to the first patient. This patient also had had no previous venereal contact.—*L'Union Medicale.*

Pruritus Vulvæ.—Duhring, in his recent work on skin diseases, mentions favourably camphor, chloral, and borax in various combinations.

℞. Chloralis ..... gr. x ad xxx.
Aquæ..... ℥i.
M. Use as a lotion.

℞. Sodæ biboratis..... ℥ss.
Morphiæ sulphatis .... gr. viij.
Glycerinæ..... ℥ss.
Aquæ ..... ℥vijss.
M.

Those preparations, somewhat diluted, may also be used as injections. For this purpose also nitrate of alumina, one drachm to one ounce, is highly recommended. As an ointment the following has been found efficacious :

R. Camphoræ pulv.,
Chloralis hydratis, āā .. ℥i.
Ungt. aquæ rosarum.... ℥i.

M. Apply locally.

A New Form of Mycosis Œsophagi.—In the *Archiv fur Experimentelle Path. und Physiol.* (quoted in *Med.-Chir. Centralblatt*, No. 32, 1877), Dr. E. Letzerich describes the case of a child sixteen months old who suffered from difficulty of deglutition, irritation, dyspepsia, and distension of the stomach, and who vomited muco-purulent masses, which were found to contain flattened epithelium, covered with peculiar microscopic fungi. An examination of the paper hung on the walls of the room revealed the cause of the child's illness. It was moist, had a fine powdery deposit on it, and presented numerous defects. In creeping along the wall, the child had pulled off small pieces and swallowed them. Dr. Letzerich found, on microscopic examination, that the fungi of the paper were identical with those in the vomited matter. The presence of these organisms explained the œsophageal and gastric symptoms. The treatment consisted in the administration of salicylate of soda in barley-water, under which, in eleven days, the patient recovered.—*London Med. Record*, Dec. 15, 1877.

Inequalities in the Lengths of the Lower Limbs before and after Fracture of the Femur.—Dr. Jarvis S. Wight, of Brooklyn, having made the statement (*Proceedings King's County Medical Society*) that nearly every person has naturally a shorter limb on one side than on the other, and that often, after fracture, we find apparent shortening where there is in reality none whatever, the fracture having taken place in the already short limb, he is taken to task by Prof. Frank H. Hamilton, who denies the correctness of the assertion. Dr. Wight, in the January number of the above journal, returns to the charge, and backs up his statement with an array of measurements made of the lower limbs of healthy individuals which is very convincing. Of forty-two measurements made, there were but thirteen in which the normal limbs were of equal length. In twenty cases the left lower limb was the longer and in nine the right. This difference ranged from an eighth of an inch to three-quarters of an inch. These measurements revealed also the fact that there is a difference between the external and the internal measurements—the under edge of the anterior superior spinous process of the ilium, at the insertion of the tensor vaginæ femoris, being the point of departure above, and the line being run to the external and internal malleoli respectively.

It is but just to Prof. Hamilton to add that he has since written Dr. Wight a characteristic letter in which he apologizes for his hasty denial of his (Dr. W.'s) statement, and that he now, after a series of careful measurements, admits the correctness of Dr. Wight's position, and compliments him on his really valuable discovery, the importance of which, in its medico-legal bearings, is at once manifest.

Annual Meeting of the Royal Medical and Chirurgical Society.—Extract of President's address :—"One thing has struck me much in drawing up these notices of the deceased Fellows of our Society, that almost without exception they may be said, in words used long ago, to have 'served their own generation,' not themselves. The sphere in which one worked was a wider, in which another

a narrower one; this man threw his energies into the welfare of the parish where he lived, another devoted himself to the interests of the dwellers in the great continent of India, a third to the vindication of the principles which seemed to him to underlie the highest interests of our profession, while a fourth, not greedy of the gain which he might have had every day, nor thirsting for public distinction, which would have been bestowed on small seeking, helped the poor and taught the student almost to his dying day. I know that to praise the days that have fled, to live in the long retrospect rather than in the short remaining future, is the natural disposition as life goes on, and its sun declines. But, for all that, I cannot refrain altogether from the question whether the spirit of the present day, the hurry to get on, the anxiety for wealth in order to meet a needlessly lavish expenditure, do not tend to emasculate character by putting self, and that not a high self, in the place of something wider, nobler, better. Pardon me for raising the question here. Some may deem it out of place. It appears to me, however, that the first Medical Society in the kingdom should assert the highest principles in conduct as well as the soundest in science; and strong in the strength, which the position I owe to your kindness has given me, I have ventured to ask a question which of myself I dare not ask, which even now I crave your pardon for the asking."

THE SYSTEM OF MEDICAL EDUCATION TO BE PURSUED IN THE JOHNS HOPKINS UNIVERSITY.—Dr. John S. Billings, of the Surgeon-General's office, lecturing recently on the system of medical education to be pursued in the Johns Hopkins University, said that whenever the science of education shall be complete it will be based upon an intimate knowledge of the complex nervous system. Some of the very best practitioners have been unable to use their mental faculities to advantage; the study of mathematics and physical science should of necessity precede that of medicine. The history of medicine shows that many skilful men were incapable of appreciating evidence. This knowledge will depend largely on a knowledge of the right use of words. Herein lies the value of the study of languages. Logic and all other studies are requisite for the man who will teach as well as practice. The diploma of another school should not be considered equal to the baccalaureate of the University. If that cannot or will not be had, then let the student undergo an examination, but under no circumstances should the degree of M. D. be given without the baccalaureate as a basis. Students, like electricity, take the shortest paths. It would be understood that no one could pass without matriculation. He must study chemistry, physics, and the rest for three years. He should, for instance, master the general principles of biology, and other Sciences, with which every well educated young man should be familiar. One-half of his time should be spent in the laboratory. In very rare cases it may be best to put a student at once where he can see the practical operation of the sciences of medicine. Some may be taught to swim by being tossed into deep water, but the most will be drowned. In general it will be best to begin with theoretic principles. In ancient times, doctors held their authority by ceremony or tradition, and then followed the system of apprentices, the time of servitude being seven years. Then came lectures, which were followed by the tutorial system, which has drifted into a mixed method of lecturing and tutoring. This will probably be the plan in the Johns Hopkins, and the best of each will be taken.

WYETH'S DIALYSED IRON.—We ask the attention of the Medical Profession to the following article by Professor Yandell, giving his experience in the use of Dialysed Iron, and a comparison of the strength and quality of nine different samples from as many manufacturers. John Wyeth and Bro., Philadelphia.—Louisville Medical News, April 27th, 1878. By Lunsford P. Yandell, M.D., Professor of Therapeutics and Clinical Medicine in the University of Louisville.—Genuine Dialysed Iron is nearly tasteless. It has the faintest possible saline flavour and a mere suspicion of roughness. Slightly diluted, its taste recalls that of fresh blood. It is not in the least unpleasant, and does not blacken the teeth or

tongue. It seldom or never produces any gastric disturbance or headache, and very rarely constipation. It is exceedingly reliable and rapid as a tonic. The spurious forms of this drug are without the characteristics of taste and efficacy above enumerated, and chemical analysis readily detects their deficiencies. Only a single specimen out of nine analysed possessed the peculiarities of the true article. My attention was first directed to this matter through the failure or misbehaviour of this Dialysed Iron in practice. It is but just to say that the good specimen is from Wyeth and Brother, the original manufacturers of the medicine in America. Wyeth's Dialysed Iron sells at about a dollar a pound. Other makes may be bought at fifty cents.

LECTURES, BOOKS, AND PRACTICAL TEACHING.—Prof. Gardner, of Glasgow, took those three topics as the theme of his address at the opening of the University. We quote, for the benefit of teachers as well as the taught, a paragraph which strikes at one serious evil in the present system of medical education: "The great fault of almost all books and of many lectures to the student, is that they attempt too much. They lose sight of the fact that a very little real knowledge is all that can profitably enter the human, and still more, the average human mind, in a limited period of time. All that is over and above this is mere learning by rote; or, in other words, what is commonly, though inelegantly, called *cram*. And out of *cram* though you may make a book-worm or a prodigy of learning, you cannot possibly evolve a physician, or even a reasonably safe practitioner of the healing art. For you may take it as quite established by experience that you—students, let us say, of the third year—cannot in one or two sessions learn the whole art and mystery of the practice of medicine. All that you can possibly do is to learn well a few of the better known and more clearly established facts and principles; and, what is most important of all in mastering these thoroughly, you can so inform your minds as to render them a fitting soil for the further, derived from experience, from reading, and from social and professional intercourse. In other words, in learning a few things well you can teach yourselves, or be taught, how to learn many other things well by-and-bye."

MURIATE OF PILOCARPINE IN DISEASES OF CHILDREN.—Prof. R. Demme (*Central Zeitung für Kinderheilkunde*) has employed this medicine in thirty-three cases in diseases requiring diaphoretic and sialogogue action. The ages of the patients ranged from nine months to twelve years, the larger number being under seven years of age. The remedy was used sub-cutaneously in a two per cent. solution. The dose employed was, for infants under two years, about one-thirteenth of a grain; between two and six years, one-tenth to one-seventh of a grain; between seven and twelve years, for first injection one-seventh of a grain, and later, according to circumstances, from one-fifth to one-third of a grain. As a rule but one injection was given daily. In exceptionally urgent cases, with, for instance, suppression of urine for twenty-four hours, with symptoms of uræmia, two to four injections of one-sixth of a grain each were given in twenty-four hours. Disagreeable symptoms, as vomiting, hiccough, faintness, repeated yawnings, and trembling of the extremities occurred only in two cases. A small quantity of cognac given before the injection greatly diminished these symptoms. In children over four years the diaphoretic action predominated over the sialogogue; between one and two years the reverse was the case. The action of the medicine commenced in about five minutes after an injection, reached its greatest intensity within ten to fifteen minutes, remaining stationary during twenty to forty minutes and then gradually decreased. The diaphoretic action outlasted the sialogogue in the majority of instances. It was particularly in cases of desquamative inflammation of the kidneys, with dropsy, following scarlatina, diphtheria, etc., that the value of this remedy as a diaphoretic was made manifest. In the majority of cases diuresis was also excited; while at the same time the amount of albumen and blood was not increased, but rather diminished.—*Boston Medical and Surgical Journal.*

Births, Marriages, and Deaths.

BIRTHS.

On the 24th of May, the wife of Dr. D. C. MacCallum, of Montreal, of a daughter.

MARRIED.

At 168 Jarvis Street, Toronto, R. Barrington Nevitt, Surgeon North-west Mounted Police, to Elizabeth E., daughter of Robert Beaty.

DEATHS.

At Norwich, Conn., U.S., on the 18th of May, Allen E. Gay, M.D.

THE

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R. ZIMMERMAN, M.D., L.R.C.P., London, *171 Church Street Toronto, Corresponding Editor.*

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TORONTO, AUGUST, 1878.

Selections: Medicine.

INFANTILE PARALYSIS; THE CLINICAL HISTORY OF CASES WITH RIGID, AND THOSE WITH FLACCID, MUSCLES.*

BY WM. ADAMS, F.R.C.S.

Under the term "infantile paralysis," two very different classes of cases are included, in both of which there is partial or complete loss of voluntary control over the limbs affected.

The two classes of cases are characterized by the condition of the muscles. In the one class the muscles are rigid, and in the other they are flaccid; and these two classes of cases present many differences in their clinical history, their pathology, and the results of treatment.

Cases of the First Class, with rigid muscles, are sometimes congenital; they occur in connexion with protracted and difficult labour, the children being born asphyxiated, and often thought to be dead; livid in colour, and not crying, or breathing for some time. It is often several hours before the medical attendant thinks the child will live, and then some convulsive seizure frequently occurs.

The cerebral congestion appears to lead to subacute inflammation of the arachnoid at the base of the brain and upper part of the spinal cord; and in the more severe cases, in which the mental powers of the patient are damaged, the substance of the brain is no doubt also the seat of inflammatory changes.

* Read at the Medical Society of London, November 19, 1877.

Clinical History.—In the course of some months after birth, in the class of cases above referred to, with rigid muscles, various defects are observed, in proportion to the extent and severity of the mischief. In many cases, only a little stiffness in both legs is observed by the nurse, who finds she cannot separate them during the washing process as widely as in other children. In other cases there is a more general affection of the muscles of both legs, so that a tendency to contraction exists in all the joints, and the child is unable to stand.

In still more severe cases, one or both arms are affected in addition to the legs, the muscles being rigid and contracted. Strabismus also occurs, and the children articulate very imperfectly, and sometimes dribble; it is in fact a general affection of all the voluntary muscles, and in these severe cases the mental faculties are more or less interfered with and weakened, the children having an idiotic appearance.

Similar cases, but generally in a less severe form, frequently occur between the ages of six and eighteen months, during the period of dentition, and are sometimes ushered in by convulsive affections; and also at a later period of infancy, during the second dentition, or as the result of some febrile condition. In all these cases fewer muscles are involved, frequently only those of one leg and one arm, or of both legs; the intellect is but rarely affected.

In some cases neither dentition nor any febrile attack precedes the paralytic seizure, and in the absence of any cause being assigned by the parents, a fall or injury is suspected, or some accident may even have been known to occur, and by this the surgeon or physician

may easily fall into an error of diagnosis, unless he has some familiarity with this class of cases. This is illustrated in a remarkable degree by a case at present under my care, in which a surgeon attributed the paralysis to a fall, which was known to have occurred, and prognosticated a gradual recovery; whereas in this class of cases there is never any natural tendency either towards improvement or recovery. A physician of equal eminence attributed it to an epileptic seizure, and advised that the young gentleman should be removed from the rest of the family, and separately provided for, as he would be liable to epileptic seizures. In this particular class of cases, however, no liability to a second attack ever exists. It is unnecessary for me to make any remarks upon the great importance of such errors of diagnosis.

In reference to the surgical treatment of these cases in the later stage, when the limbs have become contracted, division of the tendons, to remedy the contractions, is often necessary, even in the most severe and apparently hopeless cases which occur at the period, or soon after birth. These cases are, however, unfavourable, in consequence of the general nature of the affection, involving, as it freqently does, both the upper and lower extremities, as well as the muscles of the trunk, so that the benefit is often very limited. Still, by the aid of tenotomy such children are often enabled to stand and walk, when they never could have done so without the operation, and their locomotive powers can subsequently be improved by shampooing and passive exercises. In such cases it is necessary that the parents should understand the exact objects of tenotomy, and the limit to the benefit to be expected.

In the less severe cases, such as occur in the later periods of infancy, when fewer muscles are involved, and contraction often limited to one or two joints, tenotomy is of the utmost value, not only in remedying any deformity, but in restoring the limbs to usefulness. An extreme degree of lameness is often removed, so that not more than a limp remains. In the upper extremity, when the hand and elbow-joint are contracted, all deformity may be removed, and the hand rendered useful for ordinary purposes, so that the patient may feed and dress himself, especially when the treatment has not been too long delayed without any attempt being made by shampooing and passive exercises, to prevent muscular wasting.

In all cases of this class, when tenotomy is performed, the after-treatment should be carefully conducted by gradual mechanical extension, so as to guard against imperfect union, as the newly-formed connective tissue, or new tendon as it really is, is apt to become elongated and attenuated from a too rapid separation of the divided extremities of the tendon, and not from any failure in the reparative power, which is always good in these cases of rigid muscles. This, however, is entirely under the control of the surgeon, who can regulate the extension, so as to procure the exact length of new tendon required in each case. If in the course of the third or fourth week the union should be feeble, he can check or reverse the extension, and retard the treatment; or he could increase the rapidity of extension if the union should appear to be strong, and the new tendon too short for the purpose required. About six weeks after the operation shampooing and passive exercises should be commenced.

Cases of the Second Class, included in the group of "infantile paralysis," are characterized essentially by a flaccid condition of the muscles paralysed. This is the typical form of infantile paralysis—the essential or spinal paralysis of children described by recent authors —the rigid class, first described, not having been generally grouped with them.

In the clinical history of these cases are two remarkable facts—1st, the suddenness of the paralytic seizure, which in its most severe form is calculated to occasion the greatest anxiety and alarm, without premonitory symptoms or previous illness; and 2nd, the tendency to spontaneous, and sometimes complete recovery. Children apparently in good health, are put to bed, and in the morning it is found that one, or perhaps both legs are paralysed; or it may be one or both arms, or it may be an arm and leg. Occasionally the paralysis is complete, involving both arms and both legs, as well as the muscles of the trunk.

In one case at the hospital the mother told me that whilst her little girl was eating an orange she saw one of the arms suddenly drop to the side, and from that moment it remained paralysed. The mother at first stated that the child was perfectly well at the time, but afterwards admitted she gave her the orange because she was feverish and thirsty. This is important; because, I think it will generally be found that some feverish condition usually precedes the paralytic seizure, and this may explain the acute congestion, if not inflammatory exudation, which takes place in the grey matter of the spinal cord.

I have seen cases in which a child has suddenly lost the use of one of its legs whilst going upstairs, or walking on the pavement; and in all such cases the paralysis is erroneously attributed to a fall.

I mention this case in illustration both of the suddenness of the seizure, and the completeness of recovery.

Pathology.—With regard to the seat and nature of the structural changes upon which this remarkable form of paralysis depends, some authors consider that it has not yet been determined whether the cases of paralysis with flaccid muscles really depend upon any central nervous lesion, either of the brain or spinal cord. By some authorities the paralysis is thought to be of peripheral rather than central origin, the term "myogenic paralysis" being applied to it.

As this form of paralysis is seldom, if ever, a fatal disease, opportunities for making post mortem examinations, in recent cases, must be extremely rare, and in those cases in which such examinations have been made at a late period, death having resulted from some other affection, when seme atrophic changes have been observed in the portions of the spinal cord corresponding to the upper and lower extremities, these have been thought to be of a secondary character, and consequent upon, rather than producing the paralysis.

Under the head of lesions of motor nerve. cells, Charcot observes: "*Infantile spinal paralysis* is, up to the present, the most perfect type of the affections which compose this category. The numerous researches made recently in France, in reference to the spinal lesions on which they depend, concur to indicate, as an essential fact, the profound alteration of a large number of motor-cells, in those regions of the cord whence the nerves emanate which supply the paralysed muscles. In the vicinty of the atrophied cells, the connective network almost always offers manifest traces of an inflammatory process. Judging from the general aspect of the phenomena, we are induced to admit, as a highly probable hypothesis, that, in infantile spinal paralysis, a super-acute irritative action suddenly seizes on a large number of nerve-cells and makes them promptly lose their motor functions. Some cells which have been but slightly attacked will recover their functions some day, and this phase corresponds to the amelioration of symptoms which always supervenes at a certain period of the disease. Others, however, have been more severely involved, and the irritation of which they were the seat is transmitted along the nerves to the paralysed muscles which, in consequence, suffer trophic lesions of a more or less serious character.* However it be, it is known that diminution, or even loss of faradaic contractility may be observed in certain muscles, barely five or six days after the abrupt invasion of the first symptoms. The emaciation of the muscular mass makes rapid progress besides, and soon becomes evident. The alterations which, on histological examination, are found in the affected muscles are these: firstly, simple atrophy of the primitive fasciculi with the transverse striæ preserved; and secondly, the marks of a more or less active proliferation of sarcolemma-nuclei on some isolated fasciculi. The accumulation of fat sometimes seen in old cases, seems to be a purely adventitious phenomenon.†

In concluding these observations on the clinical history of cases with rigid, and those with flaccid muscles, I will briefly refer to the chief points of difference between the two classes of cases; and also the points in which they are generally found to agree.

Period and Mode of Seizure.—1st. Cases of infantile paralysis with flaccid muscles never occur at, or immediately after, the period of

* Charcot et Jeffroy, loc. cit.

† Charcot et Jeffroy, loc. cit. Vulpian, loc. cit.

birth—the time when the worst cases of paralysis with rigid muscles occur. With this exception, the two classes of cases agree as to the ordinary period of seizure being from six to eighteen months—during the first dentition; but both also occur at later periods, as the result of various febrile disorders; and both also frequently result from convulsive seizures. The flaccid class, however, are sometimes ushered in by a febrile attack, accompanied by an acute pain in the limbs, at first supposed to indicate an attack of rheumatic fever. Cases of this kind occur as late as five or seven years of age, but I have never known this condition precede an attack of paralysis with rigid muscles.

Mental Faculties.—2nd. In the cases of infantile paralysis with flaccid muscles, even in its worst form, the mental faculties are never in any way affected; whilst in the cases with rigid muscles they are often seriously impaired.

Muscles involved.—3rd. Generally speaking, fewer muscles are involved in the flaccid than in the rigid class—single muscles, or groups of muscles, either in the leg or arm, are often involved in the flaccid class; but all the muscles in the limb or limbs are generally involved in the rigid class.

Temperature.—4th. In the flaccid class the temperature of the paralysed limbs is always much lowered, and in severe cases the normal temperature cannot be restored and maintained by any means; whilst in the rigid class the normal, or very nearly the normal, temperature is always maintained.

Tendency to Recovery.—5th. In the flaccid class there is always a tendency to spontaneous recovery—often perfect in slight cases and to considerable extent in the more severe. In the class of rigid muscles no tendency to improvement ever occurs.

Fatty Degeneration in Muscles.—6th. In the flaccid class, when the affection is too severe for recovery, there is always a tendency to fatty degeneration in the paralysed muscles; whilst in the class of rigid muscles no tendency to fatty degeneration ever exists.

Tenotomy and Mechanical Extension.—7th. In many cases belonging to the flaccid class, in which contractions and deformities of the limbs have resulted, tenotomy may be dispensed with when the contraction is of a moderate degree; and mechanical extension alone will be found sufficient to correct the deformity. But in the rigid class mechanical extension always fails; and tenotomy offers the only prospect of improvement. Contractions may, howevr, often be prevented, in both classes, by shampooing, and the daily use of passive exercises.

Reunion of Tendons after Division.—8th. After tenotomy, employed to remedy the persistent deformity in the class of flaccid muscles, the risk of feeble union is from defective reparative power, and not from a too wide separation of the extremities of the divided tendon, as in the class of rigid muscles in which there is no fear of defective nutrition. In both classes, however, good union will always be obtained if the surgeon regulates the extension after tenotomy with sufficient care.

Galvanism.—9th. Galvanism, especially the mild continuous current, is of the utmost value in the flaccid class, and as far as my experience goes it is of no use whatever in the rigid class; though Dr. Tibbits has recently found some good derived from galvanism of the sympathetic, in the rigid class.—*Obstetrical Journal.*

Effects of Inhumanity.—There is abundant evidence to show that not only is the flesh of over-driven and exhausted animals greatly deteriorated in quality, but that it is in many instances positively unwholesome. According to Prof. Gamgee, the flesh of over-driven animals is said to contain a poison which often produces eczema on the skin of those who handle it. If it has such an effect on the comparatively hard cuticle of the hand, what may be its action on the more sensitive mucous membrane of the human stomach that is unfortunate enough to receive it?—*London Lancet.*

Passing the Uterine Sound.—It has been said that in certain cases "the uterine cavity was directed to the left side, and that the sound would not pass." A writer in the *British Medical Journal* says that in most instances the difficulty has disappeared when he has turned the patient over on her right side. Where the cavity is directed forwards, the woman is, of course, placed on her back.

From *Le Progrès Médical.*

ACUTE PULMONARY TUBERCULOSIS IN A NEW-BORN CHILD.

M. TAPRET.

This case relates to a child who was born in M. Millard's wards at *Beaujon*, on the 20th December, 1876; during the first thirty days, in spite of an abundance of the mother's milk, she being a healthy woman of robust constitution, the child remained puny and sickly, and presented a rather obstinate purulent ophthalmia. Although the digestive functions did not appear to be affected, the face was pale, the mucous membranes colourless, the flesh flabby, and the child's weight only increased by from 12 to 18 grammes (180-270 grains) per day. It was only on the thirty-fourth day that the first symptom of the thoracic affection was manifested, this consisted in a cough which immediately assumed a whooping character with expiratory rythm, but without true spasms: at the same time the appetite was lost, and the dyspnœa gradually increased from day to day. As local phenomena the following facts were noted: Sub-dulness in the right supraspinous fossa, rude and blowing respiration throughout the whole extent of the lungs with subcrepitant râles and a few scattered sonorous râles. During the following days, without any alteration in the thoracic symptoms, the digestive difficulties became aggravated, the child fell into marasmus and died on the 9th of March, 82 days from its birth, and 49 from the commencement of the pulmonary symptoms. The autopsy confirmed the diagnosis: broncho-pneumonia of diathesic origin. Both lungs were crammed with tubercles, some grey, others already yellow. At the right apex there existed a caseous nodule of the size of a pigeon's egg: there was found besides an intense generalized congestion, especially pronounced at both bases. The bronchial ganglia were hypertrophied and caseous. In no other organs was any trace of tubercular lesion found. To sum up, the case was one of acute phthisis limited to the lungs and bronchial ganglia, with a nodule of caseous broncho-pneumonia at the right apex, the whole appearing to have been evolved in the space of 7 weeks in an infant aged 1 month. Cases of this kind are of great rarity. On the one hand the records of the *Société Anatomique* contain no analogous instances. On the other, the statistics of writers are all concordant upon this point. Rilliet and Barthez, in fact, say that in the new-born, and during the course of the first year, the tubercular diathesis is much more rare than at any other epoch of childhood. Such is also the opinion of Papavoine and of Valleix. M. Hervieux is not less positive. If we expect, he says, the very rare cases in which children are born tubercular, we may say that phthisis is scarcely ever developed before the age of 4 months. Out of 993 children on whom this physician has made an autopsy during his sojourn at the *Hospice des Enfants Assistés*, he has only met with two cases of tuberculosis in children under the age of four months. These figures acquire a special significance when we take into consideration the source from which they have been collected. To be brief, in this observation of M. Tapret, the problem of the etiology remains obscure. There can scarcely be a supposition of hereditary tubercular influence, since the parents were in excellent health, and of robust constitution. But it is important to bring forward the fact that the father had had, some years before the birth of the child, stains upon the body, and a rather obstinate sore throat. So, although no eruption was found upon the body of the child, nor was any phenomenon discovered which might be referred to pox, still it is impossible to eliminate the hypothesis of an hereditary syphilis. Moreover, it is known that many authors, and M. Bouchut in particular, have been disposed to see in tubercular phthisis of the new-born a manifestation of that diathesis.

Lastly, from what epoch did the tuberculosis date? Was it congenital, or did it, on the contrary, only commence to develop after the first month, the time at which the first thoracic symptoms became manifest? Nothing is rarer than tuberculosis at birth; nevertheless some cases of phthisis in the fœtus are known (see Obs. of Charrin; *Lyon Medical*, No. 14, 1873.) This hypothesis appears to be the more probable, especially in view of the cachectic state

in which the child was found soon after birth, although the digestive functions were regularly performed, and although the nursing took place under excellent conditions. We shall not insist here upon the symptoms which the disease presented. They were those of lobular broncho-pneumonia, with this peculiarity, however, that there were not observed those alternations of aggravation and amelioration which are commonly seen in this affection in the new-born when it is developed apart from any diathetic influence. It was this special behaviour of the disease which led us to suspect, and justly so, the tubercular origin of the thoracic lesions.

This observation, it will be seen, presents great interest, as bearing upon the etiology and course of tuberculosis in the new-born.

An Experiment on the Disinfection of Enteric Excreta.—By John Dougall, M.D., F.F.P.S.G.—Avoiding fractions, it amounted to this (and I confess the result astonished me): one ounce of enteric fæces had deoxodised not less than ten ounces of Condy's fluid; in other words, there is no security that enteric fæcal matter is effectually disinfected by Condy's fluid, unless the bulk of the fluid used be ten times as great as the bulk of the enteric fæces to be disinfected. In the same manner, I experimented with a fluid ounce of enteric urine, and here the result was, that one ounce of the urine deoxidised at least two ounces of Condy's fluid.

Now, supposing a typhoid patient passing twelve ounces of fæcal matter and twenty ounces of urine during each twenty-four hours, say for a week, which it will be conceded, are not excessive quantities, and supposing the Condy's fluid sold to the public in eight-ounce bottles at one shilling each is used, it follows that two hundred and eighty ounces of Condy's fluid are required to oxidise or disinfect the week's urine, which, at one shilling per eight ounces, amounts to £1 15s.; and that eight hundred and forty ounces are required to oxidise or disinfect the week's fæces, which, at one shilling per eight ounces, amounts to £5 5s.; in all, £7 per week, or at the rate of £364 *per annum*. Supposing a hospital with thirty enteric patients, on an average, constantly under treatment, on these data, it would take £10,920 worth of Condy's fluid to disinfect their yearly excretions.

Surgery.

ON INTERNAL URETHROTOMY.*

BY W. F. TEEVAN, B.A., F.R.C.S.

Within the past few years, the operation of internal urethrotomy has occupied much attention in this country; the principles of this procedure have been more clearly established and better carried out, great improvements have been effected in the instruments used, and I think it may be safely predicted that internal urethrotomy will, in the future, attain that position to which it is justly entitled.

I would firstly remark that I consider most urethral strictures are best treated by gradual dilatation, carried out by means of soft instruments; that an operation is seldom called for, and ought, as a rule, to be only resorted to after milder matters have failed. I would also observe that, pathologically, there is no evidence to prove that a stricture can be cured; but practically all strictures are curable, provided an instrument is occasionally passed at regular intervals for life.

Now, if an operation be indicated, what are the requirements it must fulfil? what, in fact, is demanded of it to prove successful? I do not think the answer can be found in any English work; we must ask French or American surgeons. The former would reply that the insertion of the "*pièce d'allongement*" is required; whilst the latter would say that a "cicatricial splice" is wanted. The above expressions convey, in a very clear and concise manner, what is indicated. We have to enlarge the contracted urethra by letting into it a splice of new tissue, which is of a necessity cicatricial. We know that cicatrices are endowed with varying powers of contraction; those, for instance, which result from the clean cut of a surgeon's knife shrink but little, whereas those following lacerations contract greatly. Hence, therefore, a cicatrix made by a clean incision possesses the minimum amount of contraction, whilst that following a laceration has the maximum degree; and, inasmuch as we want a cicatrix which will contract as little as possible,

* Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Manchester, August, 1877.

we must choose a cutting operation, and not a tearing one, like the so-called "immediate dilatation."

Let us not forget these two following important surgical facts, which we constantly see, and which vividly show the relative results of cutting and laceration. When a surgeon incises the healthy urethra of a man, in the operation of lithotomy, no stricture follows when the wound is healed; but if the same man had been kicked in the perineum and his urethra torn, a stricture of the worst description would have ensued. Hence our choice is limited to cutting operations. Now, there are three forms of urethrotomy—external, subcutaneous, and internal. The external I regard as a severe procedure, which ought to be very rarely required; the subcutaneous is only adapted for cases where there is but a single stricture; whilst internal division can deal with any number of strictures; and, as it is a procedure which is attended with but little risk to life, it must be regarded as our stock operation for stricture. In what cases would I operate? If the stricture be non-dilatable, or, if dilatable, it will contract again as fast as it is stretched; or if there were numerous fistulæ combined with a tough stricture; or if the process of gradual dilatation were attended with great pain or constitutional disturbance; or, lastly, if continuous dilatation had failed. It may also be premised that penile strictures and those of traumatic origin are not usually amenable to dilatation, and require to be cut. Having determined on internal urethrotomy, shall we divide the stricture from before backwads, or from behind forwards? The answer to this question has divided surgeons into opposite camps, and acrimonious disscussions have taken place. As both parties have obtained good results, they have each attributed them to the particular method they have employed. I would venture to say that, in the hands of a skilful operator, equally good results will follow either method, but that the division from behind forwards requires a great deal more skill and care than the other, in order to determine the length of the incision, for it is not always so easy to judge where it shall end. The cutting operations may be of two kinds. Firstly, scarification. In this operation, a number of notches or small cuts are made into the stricture, but not through it, for they are not extensive enough for that. The instrument which makes the cuts is called a scarificator, and usually has two, three, or even four small blades. Secondly, internal urethrotomy, in which the stricture is completely divided at one cut by an instrument named an urethrotome, which generally has but one blade. There is a very great difference in the results of the two operations. The scarificator merely notches the stricture sufficiently to allow itself to pass through, whereas the blade of the urethrotome cuts the stricture in two, and permits of the passage of a vastly larger instrument than itself, for the simple reason that, the stricture having been completely divided, there is no longer any resistance. At one time, scarification was much employed in France; but it has, I think, been almost completely abandoned, as the results obtained by it were of a very fleeting character. It has been almost unanimously and emphatically laid down by French and American surgeons that, to obtain a good result, a stricture must either be torn through or cut through; and, as the former operation does not fulfil the requirements I have alluded to, it only remains for us to cut completely through the contraction with the urethrotome.

An enormous number of urethrotomes have been invented, and many of them have, I think, earned the late Professor Syme's condemnation, that they were "terrible engines of war." Until a few years ago, Civiale's urethrotome was, perhaps, more used than any other for dividing from behind forwards, and Maisonneuve's for cutting from before backwards: the latter instrument has been considerably improved. A good urethrotome ought to fulfil the following indications. 1. It should, when introduced, declare with certainty whether it be in the bladder or not. No urethrotome ought to be used which does not do this, for much discredit has been unjustly brought on internal urethrotomy by surgeons employing instruments which did not prove where they had gone to. Hence, false passages, and even the rectum, have been divided instead of the stricture. 2. The knife should not wound the healthy urethra. 3. The

staff of the urethrotome should be very slender, so that it can be passed through very tight, narrow, non-dilatable strictures. 4. The instrument should not only tell where the incision is to begin, but where it is to end.

Now I believe that the urethrotome, as modified and improved by Sédillot, Gouley, and myself, fulfils all the above requirements. In Maisonneuve's instrument, the groove in the staff extended through its entire length, so that the knife went into the bladder, which was unnecessary; and, as the slit was usually blocked up by blood or mucus, and hence the withdrawal of the urine, which formed no part of the operation, could not be effected. The groove in my staff is filled with a closely fitting stylet, so that, when the wire is taken out, urine will flow if the instrument be really in the bladder. Maisonneuve thought he had protected the healthy urethra from possible injury when he put a metal knob or button on the apex of his triangular blade. *Post mortem* examinations made in Paris and New York demonstrated that with his knife the healthy urethra might be cut in numerous places undesignedly. In one instance, the mucous membrane of the canal was cut in its entire longitudinal axis. Then, again, this knob on the blade pushed away some of the outlying fibres of the stricture, and so prevented their division. I have removed the button on the blade, and protected the urethra from injury by encasing the knife in a double sheath. The peculiarity of my double sheath is, that it runs outside the staff in telescopic fashion, and not inside it, as in the urethrotomes of Sédillot and Gouley. By this modification, the calibre of the staff is not increased in bulk, whereas it is greatly strengthened by the stem attached to the sheath embracing it. The sheath also represents the surgeon's finger in the urethra; for it feels for the obstruction, tells him where it begins; and, when he thinks he has divided the stricture, it assures him of the fact or otherwise. Lastly, it makes the parts tense for us when we stretch the penis forcibly upwards towards the handle of the urethrotome. I have had the end of the staff of the urethrotome tunnelled like Dr. Gouley's, so that the instrument can either be slipped over a fine filiform bougie introduced into the bladder, or it can be screwed on to the "bougie conductrice," and made to follow it into the bladder. The groove in my staff stops two inches from the end; so that, when the urethrotome is in the bladder, the curved non grooved extremity is in the prostate and bladder. Inasmuch as there is never any stricture in the prostate, there is no object in carrying the groove to the end of the staff, as it is in the urethrotomes of Sédillot, Gouley and Maisonneuve. The conducting bougie is of great value; for in some cases it is impossible to introduce the urethrotome, not because the stricture is so tight, but because the passage is so tortuous. If, however, the bougie be first passed, and the staff of the urethrotome be screwed on to it, it will follow the former into the bladder. This procedure must be conducted very slowly, otherwise the bougie may be doubled up if the urethrotome be pushed too quickly after it. When the instrument is apparently in the bladder, I withdraw the stylet to verify its position. If urine flow, I operate; if it do not, I withdraw the urethrotome and try again another day. Supposing, however, that the urine escapes, I stand on the right of the patient, and take the knife enclosed in its double sheath, and, protruding the former a little, I insert it into the groove of the staff, and immediately slip the double sheath *over* and *outside* the staff. I then withdraw the knife within the sheath, and, clutching hold of the penis just behind the gland, I draw it forcibly towards the handle of the urethrotome, which is held by an assistant standing opposite me; and with the right hand push the stem of the sheathed knife slowly down the urethra till it arrives at the obstruction, against which I keep it steadily pressed. By these two manœuvres, I have ensured that the stricture is made perfectly tense, so that it can be cleanly and completely divided. I now protrude the knife for half an inch, knowing that that is the minimum cut required to divide even a ring-stricture no thicker than a thread. The knife is then withdrawn into its sheath, which is pushed forwards to see if the stricture be completely divided or not. If it be not, the process is repeated, each cut being half an inch long, till everything is cut. I generally divide the strictured urethra in the roof, as I think that is the

best situation, for the bulb is thereby avoided. If the surgeon prefer, however, to cut the floor of the canal, all he has to do, when he has passed the staff of the urethrotome, is to reverse the instrument, so that its point is turned behind the prostate, as in lithotrity. The urethrotome can be made with a lateral or inferior blade, if desired. As soon as I have ascertained that the canal is perfectly free from one end to the other, I withdraw the instrument and introduce a No. 25 silver catheter, for the purpose of demonstrating that the urethra has been restored to its normal calibre and to completely empty the patient's bladder. By ensuring that the bladder is empty, the patient can go for some four or six hours without wanting to make water, by which time the wound will be covered with a firm clot, and the pain in micturition be considerably diminished.

I do not leave any catheter in the bladder after the operation, and I allow the patient to pass his urine naturally. I believe I was the the first surgeon in this country to dispense with the use of the catheter after the operation. If there be one practice more persistently insisted on than another in English surgical works, it is that of the necessity of the use of the catheter after urethrotomy, the instrument to be either left in the bladder or else employed to draw off the patient's urine; and the writers point out the disastrous consequences which will take place, in the shape of abscess, fistula, or infiltration of urine, if the practice be not observed. To Dr. Gouley of New York belongs the credit of having shown the utter groundlessness of the surgeon's fears.

After the operation, I am in no hurry to commence the passing of instruments, usually waiting till the fourth day, and not introducing them oftener than twice a week. At the end of ten days, I begin to teach the patient how to pass a catheter for himself, and order him to do so every Saturday night till further orders. By passing a large No. 25 bougie or catheter several times after the operation, the insertion of a good "cicatricial splice" is guaranteed.

Now as to results. I have operated in all on thirty-three cases, all of them of the worst description, and for that reason relegated to the operation, without a single death. In one instance, the urethra was so indurated in its entire length that I left in a catheter after the operation, to set up urethritis, and so lessen the thickening. The inflammation was, however, more than I desired; and abscess, followed by fistula, ensued. The case ultimately got quite well. In one case only had I troublesome bleeding. It proceeded from the meatus, which I had divided, and was a hint to me for the future not to cut the meatus at the same time as the stricture, but several days before. As a rule, not more than a dessertspoonful of blood escapes either at or after the operation. Secondary hæmorrhage I have never seen. Rigors occurred in about two-thirds of my cases. I look upon them as entirely nervous and of no importance. It is stated in books that rigors are due to the passage of the urine over the wound. This, however, cannot be the correct explanation; for, unless pyæmic, they are never seen after lithotomy or external urethrotomy. I look upon rigors after internal urethrotomy as caused by the sudden *stretching* of the nerves in the wound through the distension of the canal by the urine. In three of my earlier cases, I had to repeat the operation, as my incisions had not been sufficiently free. I am sure that every one who performs the operation will be pleased with the soft supple cicatrix which follows it, so different from the rough, tough, irregular cicatrix which forms the so-called "immediate treatment," which is neither more nor less than absolute laceration, not always of the tough stricture, but sometimes of the unoffending healthy urethra, where, as elsewhere, "the weaker goes to the wall."

Now for statistics. I think they will be found to be eminently satisfactory, and will carry conviction. They are the largest, I believe, which have ever been placed before the profession, and show what internal urethrotomy can accomplish. No other operation for stricture with which I am acquainted can produce such favourable results. I consider that no operation can be performed on the urethra without a certain amount of risk; but how slight that risk is you will immediately see. I find by examination that the operation has been performed by six surgeons in London, Paris,

Mobile, and New York, one thousand and ninety-five times, with but ten deaths; and there would probably have been two deaths less had it not been for the crowded state of the wards in the Necker Hospital during the Commune.

In conclusion, gentlemen, let me say that the experience of a solitary surgeon may be misleading, but that the conclusions which must be arrived at from the overwhelming mass of figures which I have placed before you loudly proclaim that the operation of internal urethrotomy claims your consideration and demands your support.—*British Medical Journal.*

SUBCUTANEOUS EXTRA-ARTICULAR OSTEOTOMY FOR GENU VALGUM.

The operation to which this name has been given was performed for the first time on Friday last, May 17th, at the East London Hospital for Children, by Mr. Reeves, in the presence of several foreign surgeons. Its object, which was thoroughly obtained, is to improve on the method of operating on cases of knock-knee devised and executed by Dr. A. Ogston of Aberdeen; and our object in calling attention to it at this early stage is to induce surgeons to give it that trial and preference which a less severe and equally efficient operation must claim. We give the substance of Mr. Reeves's observations before the operation. In Dr. Ogston's operation, the knee-joint is entered by the tenotome or scalpel, a fine saw is introduced along the knife-track, and the internal condyle is sawn off. This proceeding has now been done about thirty times *antiseptically;* and the results have been, on the whole, very encouraging; yet we have heard of a few cases in which synovitis, followed by severe constitutional disturbance and ending in ankylosis, has occurred. It was to avoid, if possible, these unnecessary complications, that Mr. Reeves thought of the extra-articular method. A scalpel, previously dipped in carbolised oil, was introduced obliquely just above the inner tuberosity, and the soft parts and periosteum were divided; by the side of the knife, a chisel, also dipped in carbolised oil, was introduced, and the internal condyle separated *as far as the cartilage only;* and, the chisel being then used as a lever, the condyle was prised inwards till it was felt to move moderately freely. The limb was then forcibly straightened by Mr. Cæsar and Mr. Parker; a pad of lint dipped in carbolised oil was put over the small aperture; and a long splint, interrupted at the knee, and with a cross-piece at the foot to keep it steady, was adjusted to the straightened limb. As the condyle differs in shape and depth, it is of course necessary to be accurate in chiselling; and, to guide him, Mr. Reeves previously marked out with ink on the skin not only the contour of the condyle, but also the direction of the chisel-cut. The greatest depth of the condyle was marked on the chisel, allowance being made for the thickness of the cartilage and of the soft parts; the chisel was then driven home till the mark on it nearly reached the skin. The condyle having beeen first penetrated in its greatest depth, the chisel was partially withdrawn; its direction was altered, first forwards, then backwards; and, with a few oblique touches, due allowance being made for the varying depths, the condyle was felt to be sufficiently loose, when the instrument was withdrawn and the knee straightened. The joint was not entered; no synovia escaped; and the feeling of resistance to the chisel was not at any time overcome. Had this been the case, the joint must have been opened. It might, *à priori*, be thought that the uncut cartilage, with perhaps some slight uncut bony bridges, would either interfere with the reduction of the deformity or would only yield after being broken. The result so far, in this case, does not confirm these objections, if they be serious objections. Experiment and experience must determine the matter in the case of adults; but in children, in whom the condyles are not completely ossified, and what bone there is in the young cancellous tissue is soft and pliable, these objections do not hold. But, even if the cartilage were to fracture, or even if the joint were entered—say purposely—with the chisel, the proceeding would not be so severe as if done with a saw. Another modification in this operation is noteworthy. It has been said that the internal condyle was separated. It is more correct to say that the greater part of it was almost

separated; that is to say, that the chisel-cut did not extend to the intercondylar groove, but only to its inner side. The aim of this is to preserve some part of the inner condyle, which may grow, and thus obviate any possible future *genu extrorsum* which may be the consequence of the increased growth of the external condyle. All these operations, which may be termed rapid as contradistinguished from the older methods of splinting and tenotomy, when necessary, are too young to admit of any dogmatic statements about them; but in the meantime we should adopt that method which is effectual and least risky. Delore's, Ogston's, Max Schede's, Annandale's, and Macewen's, and the one just described, have all the same object with regard to this deformity; but the methods of executing it differ. One, by *brisement forcé*, separates the upper tibial epiphysis; another removes a wedge from the upper part of the tibia; another attacks the femur; and yet another removes a wedge from the internal condyle. Ogston's method and this agree in principle, but differ in execution and severity. The advantages of the extra-articular method seem to be, greater rapidity of execution, rendering it more strictly subcutaneous; much less damage to the bone, cartilage, and soft parts; no interference with the knee-joint; and, as the condyle is not completely separated, there is less likelihood of subsequent non-union and necrosis. Again, the resulting joint-surface will be more regular; and, by leaving a part of the condyle, the probability of a genu extrorsum is much diminished. Then there should be no difficulty with the case. As soon as the condyle has become firmly attached in its new position, the stiffness will only be due to having kept the knee fixed for some weeks—say five—and not to ankylosis, which has to be overcome by frequent passive motions under anæsthetics. In the present case, it was endeavoured to make the section on the distal side of the line of junction of the epiphysal cartilage. This is considered important with reference to the future growth of the inner side of the femur. The operation was not antiseptic in the Listerian sense; it was carried out in the same way as nineteen other osteotomies (five femora, ten tibiæ, and four fibulæ) by the same operator; and, as in these cases everything progressed as could be wished, no additional precaution was deemed necessary. Even this operation of minimum severity Mr. Reeves would at present confine to those cases of overgrowth of the internal condyle in which the older methods are not applicable or have failed; but, as soon as experience shall have taught that there is nothing to counterbalance its many advantages, he would not hesitate to recommend and adopt it as the first means in the more severe cases of this deformity. Expensive and somewhat cumbrous apparatus becomes necessary after tenotomy, etc.; and they will not be needed in the case of surgically displaced condyle, the cause of the deformity—*i. e.*, the overgrown condyle—being put in proper position. It should, in conclusion, be stated that there has been no rise in pulse or temperature, and only such local pain as might naturally be expected. —*British Medical Journal.*

Improved Method of Taxis in Hernia.—Dr. Hildebrand describes, in the *Allg. Med. Central Zeitung*, April 20th, a method of taxis, which, he says, is nearly always successful. When the hernia is on the right side, the surgeon places himself on the patient's left, takes the hernial sack in his left hand and moves it in all directions, at the same time drawing it from the body, while his right hand impresses a series of movements on the abdominal wall, pressing it from the right toward the left side of the patient; then, by grasping with the right hand deep in the hernial cavity, the impacted link of intestine can generally be caught and withdrawn. The action is reversed when the hernia is on the right side. Of course, a proper position and the use of anæsthetics are understood.

New Mode of Treating Varicocele.—I find the following simple procedure an efficient method of treating varicocele. Pass a long and strong hare-lip pin between the veins and the scrotal walls, bringing the point of the pin close beneath, but not through, the scrotum; then make the point retrace its course, but passing now behind the veins, until it emerges near the puncture through which it entered. In a word, by employing that form of acupressure known in the Aberdeen School as the method of retroclusion, a varicocele may be effectually compressed and the veins obliterated.—S. Messenger Bradley, Manchester.—*Brit. Med. Jour.*

Midwifery.

THE TREATMENT OF SORE NIPPLES.

The measures recommended from ancient times to the present for the treatment of sore nipples are past enumeration, and yet there is nothing which may be employed with absolute certainty. On this account the author takes occasion to report the following cases in which he has used carbolic acid "with so direct and striking results" that he deems it his duty to recommend this agent in the affection under consideration.

1. Frau S., confined for the first time in August, 1876. On the third day she presented upon the right nipple several fissures and two vesicles which were very painful upon nursing the child. The fissures were cauterized and vesicles opened with the nitrate of silver pencil. After lead-water applications were made and less often applications of the child to the affected side was enjoined. In spite of this careful, thorough treatment two painful weeks passed away before the nipple was completely healed.

Early in October, 1877, the woman was delivered the second time. She must have suspended nursing after about five months on account of the new conception. This time she showed on the third day after birth, upon both nipples several vesicles as well as several fissures. The vesicles were emptied and all sore places were again touched with the nitrate of silver pencil. The pain upon the application of the child was diminished so little that in the evening an attempt was made to protect the breast with a rubber nipple shield, but this was rejected. The next day the fissures were enlarged, very red and, like the borders of the vesicles, bleeding easily. An experiment with carbolic acid was now determind upon. Applications of a 5 per cent. solution were employed, which were renewed every 2 or 3 hours. Of course before every nursing the breast was carefully cleansed in order to prevent any taking up of the acid by the child.

The solution was tepid, a clean linen cloth was moistened with it and laid upon the nipple. Directly after the first application the pain abated and it did not increase when the child was put to the previously carefully cleansed part. The next day the fissures were smaller and paler, the eschar gone and after two days' longer use of the solution healing was complete. No more pain was felt in the breast from nursing.

2. Several weeks after the above a lying-in woman presented, both of whose nipples were sore. The nipples were well projected and of normal size. Upon the surface of the right there were two fissures and upon the left one fissure, about four mm. long and 2 mm. deep, the left arising from a burst vesicle with a superficial eschar upon the skin of the nipples. This was treated in the same manner, but with only a two per cent. solution renewed every two hours. After probably two hours the child was again applied, the left nipple manifested far less sensibility but the right was yet painful. The application of the solution was continued. Although it was not made regularly the next night, the sucking and grasping of the child of the left nipple was entirely painless. The right, on the contrary, had been much more painful since the day before. Upon inspection the fissures were found decreased in size and paler. Notwithstanding the irregular employment of the solution the pain was eased in the right nipple during the course of the day and the woman was able to nurse without the least annoyance. Eight days afterward there was experienced a new pain of violent character in the right nipple which was later ascertained to proceed from a small recently formed fissure. One application of a five per cent. solution of carbolic acid was made. At first it excited somewhat severe smarting, but it sufficed to render completely painless the next nursing of the child and in two days the fissure had disappeared.

"Earlier experience has shown me," says the author, "that fissures, excoriations and small ulcers of the nipples treated with other agents, as nitrate of silver, tannin, acetate of lead, etc., are not much benefitted. In the mean time the result from the carbolic acid was scarcely anticipated so quickly, especially since the affection was double-sided, absolutely excluding sparing of the nipples. There is a striking difference here in the result of treatment of the two cases. The first treated with nitrate of

silver and lead-water applications, notwithstanding only one nipple was affected and rest was permitted, was two weeks under treatment. The second treated with carbolic acid, in spite of both nipples being involved and constant nursing, was relieved in two days. The second observation also shows that the stronger (five per cent.) solution is to be given the preference over the weaker (two per cent.).

"Furthermore, the probability is that it would not have been possible to continue the nursing during this time. The shortness of treatment is most favorable to the acid and its constant application is not so painful as one touching with the nitrate of silver pencil. Finally, the nitrate of silver does not always penetrate into the smallest fissures of the nipple, while the acid solution naturally passes into the deeper tissues, as its fluid state evidences. According to the statements of the second woman, after each application of the acid she not only experienced a considerable smarting in the nipple, but also in the neighbourhood. In my opinion the great pre-eminence of the carbolic acid over all hitherto recommended solid and fluid medicaments, consists in its not only reaching and cauterizing superficial sore places, the naked mouths of the finest lymph vessels, but, besides, completely penetrating them. By the regular employment of a concentrated solution (five per cent.) it is possible to destroy multiplying parasitic germs or infectious organic matter of whatever kind and subdue almost at the commencement all inflammations of the breast glands."—*Clinic.*

Phymosis.—My object in bringing this case before you this morning, was to draw your attention to the occasional development of a sort of unhealthy deposit of lymph, after operations for phymosis, in children of a scrofulous or otherwise impaired constitution. I have had this happen once or twice in my own practice, and I know at the time it worried me greatly. I have seen the same abnormal glueing together of the preputial tissues occur after operations at the hands of other surgeons, when the greatest care had been practised at the time of operation. Why it should so happen I cannot tell, but it does sometimes take place, and you ought to know how to deal with it. Do this; split up the prepuce, and if you have performed at the first operation a satisfactory circumcision, you will usually have but little further trouble.

DIFFICULTY IN DIAGNOSIS DUE TO ROTATION OF OVARIAN TUMOURS.

BY J. KNOWSLEY THORNTON,

Surgeon to the Samaritan Free Hospital for Women and Children

On December 18th, 1876, E. A. B., aged twenty-four, single, came under my care at the Samaritan Hospital, during the absence of Mr. Spencer Wells :—

Mr. Stevens, of Hoddesdom, Herts, had first been called to see her in consequence of a sudden attack of pain in the right side just before her menstrual period. The first attack had occurred six months before she came under my care, and each returning period had brought a recurrence of the pain, which was sometimes so severe as to make her roll on the floor in agony.

When she came under my observation she was a healthy-looking girl, with full colour and no emaciation. She measured 30½ inches round the abdomen at the umbilical level, 4½ inches from the ensiform cartilage to the umbilicus, and 7 inches from the umbilicus to the pubes. There was a small moveable tumour occupying the right side of the abdomen and reaching to the umbilicus, and slightly across to the left of the linea alba. Its borders were overlapped by intestine all round. It could be felt to the right and in front of the uterus per vaginam, and appeared closely connected with it. The os and cervix were natural; the uterine cavity measured only 3½ inches. I could not feel certain as to fluctuation in the tumour, but I thought it did fluctuate. There was also a slight wave of ascitic fluid.

I kept her under observation during a period, but did not gain any fresh light as to the nature of the case. The pain was much less severe than at the former periods. Ascitic fluid now began to accumulate rapidly, and the patient, who had been in very good health, lost her appetite, got a yellow look, and complained of general malaise. I therefore determined to make an exploratory incision, and remove the tumour if it were found possible to do so. The period ceased on January 20th, and on January 24th, assisted by my colleagues, Dr. Bantock, and Dr. Champneys (the latter administering bichloride

of methylene), I made the incision usual in ovariotomy to four inches. Six or seven pints of brownish ascitic fluid escaped on opening the peritoneum, and the tumour presented at the opening. It was of a dark liver colour, and had a firm sodden feeling, but evidently contained fluid. Some filmy adhesions to the intestines on the right side were ligatured with fine silk and divided. Firm adhesions to the appendix vermiformis, requiring three ligatures, were then dealt with. The tumour was tapped, and about a pint of thick tar-like fluid evacuated. The substance of the cyst was very friable and broke away from the claws of the trocar. It was seized with Nelaton's forceps, the opening enlarged with scissors, and some inner cysts, with similar contents, broken up, and the tumour withdrawn. I then found a short, hard, and twisted pedicle on the right side of the uterus; it was untwisted, transfixed, and tied in two halves, and the tumour cut away. No trace of the vessels could be seen in the pedicle, and I believe it might have been cut without hæmorrhage. The left ovary was found enlarged and forming a grape-like bunch of small pediculated cysts. Its pedicle was secured in the same manner as the other, and it was removed. All the ligatures were of fine silk, and they were all cut off close to the knots and returned into the peritoneum, which was then thoroughly sponged out and the wound closed by silk sutures. The tumour weighed 11lb. 12oz., and there were seven pints of the mixed ascitic and cystic fluids. It was an ordinary multilocular one, and some of the small cysts which had not been broken contained a pure dark fluid blood. A large patch of the main cyst wall was very thin, apparently from ulcertion of a portion of the lining membrane, and so soft t at the finger was easily pushed through it.

The second case is similar but more perfect as an example of the subject, because I saw her before the twisting of the pedicle occurred in the first instance, or, at any rate, before any marked symptoms of the rotation were apparent.

M. M., aged thirty, single, came to see me in August, 1877, from Woolland, in Dorsetshire. She had been under the care of Mr. Trazewell, of Sturminster Newton, who had diagnosed an ovarian tumour.

I found a small ovarian cyst with very free fluctuation, and apparently free from any adhesions. By pelvic examination I could only just detect the tumour. She was a healthy-looking young woman with a full habit, and apparently not suffering in any way from the tumour, except that it prevented her stooping, and doing various things which her occupation of cook rendered necessary. The Samaritan Hospital was just closing for its autumn cleaning, and I was leaving town; I therefore advised her to come up again in October and have the tumour removed. On her return in October she was thinner, and not looking so well, and her skin had a yellowish hue.

History.—In August, 1876, first noticed a lump in the right side, about the size of a hen's egg; it gradually enlarged, and in May, 1877, she began to suffer pain in the bowels, was feverish, and was in bed for two weeks. From this time the tumour gave her more trouble; she often had pains in the abdomen and back, and suffered more than formerly at the menstrual periods. On her return home in August all her pains greatly increased, and from that time till she returned in October she suffered from constant pain in the back, with bearing down of the uterus and stooping became impossible from the pain it caused in the abdomen.

On proceeding to examine her I was at once struck with the fact that though she had lost flesh and was, consequently, generally smaller, the tumour itself had evidently decreased in size. Proceeding to feel it I found it firmer, and no longer so distinctly fluctuant; indeed I was in doubt whether there was any fluctuation, it had to me much more the characters of a soft fibroid. Pelvic examination revealed no change, except that the tumour seemed much more more closely closely connected with the uterus than I had thought. I was now inclined to regard it as a pediculated outgrowth from the uterus, but with my former impression fresh and strong in my mind was much puzzled. I asked Mr. Wells to see her with me, and he agreed that it was a doubtful case, and advised keeping her under observation. Others among my colleagues., who kindly saw her with me, declined to give a positive opinion; but the

general leaning was evidently in favour of its being uterine—this view being encouraged by the general appearance of the patient, and the strong pigmentation of the linea alba.

On December 13th Mr. Meredith gave bichloride of methylene, and assisted by my colleagues, Dr. Bantock and Mr. Doran, I made a small incision in the usual situation. The hæmorrhage from the parietes was freer than I have ever seen it, and I was some time before I could open the peritoneum; when I did so I at once saw the familiar white, glistening surface of an ovarian tumour, and enlarged my incision to five inches; when more fully exposed the surface of the cyst was seen to have a mottled look, and, greatly to my surprise, was adherent in all directions to the parietes by firm films and bands which were vascular; similar adhesions connected with the omentum and intestines—many of these required ligature. The tumour felt so solid that I attempted to remove it whole, but finding this impossible without unduly lengthening the incision, I tapped it and let out a quantity of thick, dark, grumous material; drawing out the empty cyst I found a firm, fibrous twisted pedicle close to the right side of the uterus. I transfixed and ligatured it in two halves with medium silk; when I cut away the cyst the vessels were seen to be plugged with partially decolourized clot. The other ovary was plump and healthy, the uterus normal, but pulled somewhat over to the right, and somewhat out of shape. The very free hæmorrhage in cutting through the parietes was explained by the fact that the chief blood supply of the tumour was received through its parietal adhesions. It is very remarkable how very freely the tumour could be moved about in the abdomen when we consider the extent of the adhesions.

The difficulty in each case was to decide whether one had to deal with an ovarian tumour or some other. In both cases the uterine outgrowth seemed to me most probable as an alternative, extra-uterine fœtation being also suggested in the first case. In both cases the pain at the periods referred chiefly to the side on which the tumour was situated and to the back, was a marked symptom, though so much more severe in the first, and this also pointed to uterine rather than ovarian disease.

In both, the twisting of the pedicle shortened the connexion between the tumour and uterus, and increased the likeness to a pediculated outgrowth.

In both, the stoppage of blood supply, though in different degree, led to decrease in size, with corresponding solidification of the tumours.

In both, extreme congestion, with large extravasation of blood into the tumours, seems to have preceded the complete obstruction to the circulation. The reason for this, as I have pointed out in the paper in the Pathological Transactions already referred to, is to be found in the thin walls and large size of the veins with the thick muscular coats of the arteries in ovarian tumours. Doubtless the increase of pain at the periods was due to the increased vascularity with proportionate congestion. In both a certain jaundiced appearance was observed, due, as I believe, to the reabsorption of the colouring matter of the blood, I have seen it more than once in patients with large hæmatoceles which have been left to nature.

In the first case the whole tumour was practically dead and non-vascular, only small portions of its peritoneal coat affords us a beautiful example of the harmless nature of dead tissue, provided it is guarded from all sources of external contamination—an example accentuated for those who will carefully study the subject by a comparison with the course of events in the case I have already alluded to, where strangulation of the tumour took place after the causes of putrefaction had been introduced into the tumour from without.—*Obstetrical Journal.*

Early Sign of Phthisis: Falling of the Clavicles.—Dr. Haenish points out, in the diagnosis of commencing tuberculosis, a sign already mentioned by Aufrecht. The acromial extremity of the clavicle should be higher than the sternal extremity. If it be lower, the significance is that the respiratory field is restricted on that side. If the two ends of the clavicle be found on the same plane we should suspect tuberculosis, especially if there be already other suggestive symptoms.—*Jl. de Med. et de Chir. Prat.*

ON THE CURE OF DYSMENORRHŒA, STERILITY, AND CERTAIN AFFECTIONS OF THE UTERUS, BY A NEW FORM OF ELASTIC INTRA-UTERINE STEM.

BY ROBERT GREENHALGH, M.D.

* * * * * * *

Two years ago, I succeeded in designing a stem with manifest advantages over every other pattern. The stem consists of pure India-rubber tubing, No. 13 catheter gauge, easily admitting the introduction of a large Simpson's sound, two inches and one-eighth in length, tapering at its upper or uterine end, and armed with an oblong shield measuring one inch and three-quarters from side to side and one inch and a quarter from back to front. In this shield are ten perforations to facilitate cleanliness. Three-sixteenths of an inch from its upper extremity is a bulb two inches in circumference, with four diamond-shaped slits, which collapse when stretched on a dilator to facilitate introduction. When the stem is inserted and its retention is secured, and the dilator removed, this bulb at once expands in the body of the womb, while permitting a ready escape of the uterine secretion. The whole being cast in one piece, there is no chance of the separation of any part of it.

There are two points in connection with the use of the India-rubber stem to which I am particularly anxious to direct attention, in addition to the advantages already referred to. Firstly, although soft, elastic, and easily bent while out of the uterus, it becomes sufficiently firm when pressed equally on all sides by the canal of the cervix to gradually overcome all flexions, except in cases where the uterus is bound down to the surrounding parts. Secondly, its action is not purely mechanical. It has been observed by myself and others that, in many cases where the stem has been worn for some time, the enlarged and firm uterus has become greatly reduced in size, and so soft as closely to resemble that organ in the early stage of subinvolution: effects probably due to the freer exit of the secretions and the mucous discharge, which usually persists during the retention of the stem.

Having described the form of stem, I shall now briefly allude to the cases in which I have found it most useful; premising, however, that mechanical treatment should never be undertaken till the removal of all indications of active disease, and the uterus is reduced to a minimum of sensitiveness by the use of rest, local depletion, hot vaginal injections, soothing suppositories, and other measures; and, further, until the sound has been passed once or oftener to ascertain how far the uterus is tolerant of local interference. Moreover, at the commencement of treatment, I usually enjoin one or more days' rest in bed. After this preliminary treatment, I first introduce a small silver stem; and in two or three days, if loose, I substitute one of larger size, when the canal is usually sufficiently dilated to admit the introduction of the India-rubber stem. By this gradual dilatation, which occupies usually about a week, the largest stem can be more easily introduced, and far less irritation is likely to follow than when the introduction is more speedily effected—an operation frequently not easy and occasionally impossible.

Should the stem have a tendency to slip out, which is sometimes the case, it can be easily retained *in situ* by pressing upon the shield a plug of cotton-wool, saturated with glycerine, tied crosswise with fine twine to facilitate removal.

I may here remark that early experience taught me never to use sponge or sea-tangle tents, nor dilators, with a view to more rapid dilatation, by which considerable pain is occcasioned, and irritation, and sometimes inflammation, is set up, thereby rendering the case temporarily unfit for the stem-treatment.

The most fitting time to introduce the stem is shortly after a menstrual period, its retention being determined by the peculiarities of each individual case, the effects produced, and the end to be obtained. In my cases, the time varied from fourteen days to eleven months. The best time for removal is about a week before the next expected period. When retained for a considerable time, the discharges are apt to become offensive, notwithstanding the daily use of the vaginal douche. Still I have never known any evil result beyond this temporary annoyance to the patient.

I have now used the India-rubber stem for more than four years in a large number of private and hospital cases, and in two cases only —cases of chronic metritis with retroflexion, in which a spring vaginal pessary was worn—have I had to withdraw it on account of the onset of irritation. Both patients were highly sensitive women, and had undergone but little previous treatment. I have found these stems most useful in the following cases :

1. Dysmenorrhœa ;
2. Flexions—ante- and retro-flexion of the uterus ;
3. Strictures of the orifices and canal of the cervix ;
4. Sterility, congenital and induced ;
5. Certain cases of subinvolution ;
6. Certain cases of interstitial fibroid of the uterus.

In two cases, the anteflexion was so extreme that, although the India-rubber stems were worn for many months, still they were found bent. In one, the patient was free from dysmenorrhœa at the end of many months, and may still so remain for aught I know.* As to the other, a hospital patient, from whom Dr. Godson removed the stem, I have no particulars. I have reason to believe, from a subsequent examination, that in one of these cases the uterus was bound down by adhesions to the surrounding parts. In a few cases, where there had been a tendency to a free loss during menstruation, the flow was much increased and the period prolonged, but never to the extent of inducing me to suspend treatment. In nearly all the cases, while the stem was in position, there was a more or less free secretion of mucus, in a few occasionally tinged with blood, which ceased on removal of the stem. I could have largely added to the number of cases treated during a period of nearly five years ; but I have deemed it more useful and instructive to restrict myself to the narration of a few typical cases.

A friend, after having read through this paper, remarked that it would be as well to record one or more unsuccessful cases ; but, as not one case of failure has at present come to my knowledege in which the stem-treatment has been carried out, I am, happily, unable to comply with his suggestion.—*British Medical Journal.*

* I have recently heard that this lady became pregnant, went the full period, and was safely delivered of a living female child about two years ago.

Therapeutic Notes.

KOUMISS; ITS MODE OF PREPARATION AND ITS REMEDIAL VALUE.

BY WILLIAM PEPPER, M.D.,
Professor of Clinical Medicine in the University of Pennsylvania.

Despite the marked advances made of late years in our knowledge of the alimentation proper for different kinds of disease, we are constantly meeting with special conditions in which it is very difficult to find any form of food that will agree with the patient. The introduction of the exclusive milk diet, now so well established, has put into our hands a most valuable mode of treatment in a number of obstinate and intractable affections.

Not only in gastralgia and some other forms of dyspepsia, and in chronic diarrhœa, but in organic diseases of the kidneys, in certain types of cardiac disease, and in some nervous affections, does the administration of milk, according to a definite method, prove an invaluable mode of treatment. In cases of malnutrition or of wasting disease, where it is desired to give more food than can be advantageously taken in a solid form, milk has been found the best addition to the diet. It will be found, however, that in certain cases of all these groups milk is not well digested. No doubt the assurance so often given to us that milk cannot be taken is, for the most part, unfounded. But I have frequently met with cases where very careful trials convinced me that the statement was literally true ; and, unfortunately, in not a few instances this has happened in the very cases where I was most desirous either of using an exclusive milk diet or of giving a considerable amount of milk to eke out the insufficient quantity of solid food that could alone be digested. In these cases I have found very great advantage in resorting to koumiss as a substitute for milk. I have also found that this new article of diet is peculiarly applicable in certain conditions where milk is not specially indicated.

Before illustrating these statements by the brief notes of a few of the many cases in which I have used koumiss with advantage, a short account of this useful food may be given. It is

essentially milk in which alcoholic fermentation has been induced, and allowed to proceed to a moderate degree. In Tartary, where it has been extensively used for centuries, mare's milk is employed; while in Russia, according to Liebig, cow's milk is chiefly used in its preparation. I am satisfied that koumiss made from cow's milk is quite as good as that made from the milk of mares or of camels. It has also been supposed that some special ferment used in Tartary was more efficient than any other, but I believe that ordinary brewers' yeast answers the purpose equally well.

As koumiss will not bear transportation to any considerable distance, it is desirable that the mode of preparing it should be generally known. I have therefore requested Mr. George I. McKelway, of Philadelphia, who has supplied me with all the koumiss my patients have used, to give the formula for its preparation. He writes as follows: "The manufacture of koumiss is a very easy and simple process. I take—

℞. Best unskimmed milk..... qt.j.
Yeast (brewers' or old bakers')..grs.c.
Cane sugar ..... grs.cc.

"Keep the mixture at a temperature of 80° Fahr. until fermentation is quite brisk, stirring it frequently, and then bottle, carefully securing the corks with strong twine or wire. After twenty-four hours it is fit for use.

"The object of the addition of the cane sugar is the certain induction of alcoholic fermentation. If the sugar be left out the result is likely to be that lactic fermentation only is set up, and the product is sour milk. The quantity of sugar used has, of course, to be judged by the richness of the milk and its consequent richness in fermentable constituents."

The koumiss thus prepared by Mr. McKelway has proved entirely satisfactory. It is a very agreeable drink, having a slightly acid taste, and containing from three to four per cent. of alcohol, one to two per cent. of lactic acid, and is highly charged with carbonic acid gas. It contains the ordinary ingredients of milk, with the exception of the lactose (sugar of milk), most of which is converted into alcohol, and lactic and carbonic acids. Koumiss is acid to litmus paper, both before and after being freed from carbonic acid. Its specific gravity is rather less than that of the milk from which it has been made (1·040 instead of 1·043). As it is important to retain its effervescing character, it should always be drawn by means of a "champagne tap." It should be used within a few days of its preparation, since after two or three days the alcohol and lactic and carbonic acids increase so as to make it less agreeable and less well adapted to most cases. It should be kept on ice, or in a very cool place, as warmth soon causes the caseine to separate into a thick, heavy curd. Koumiss may be said, then, to fairly represent the nutritive properties of good milk, while possessing, in addition, a mildly stimulating character. The carbonic acid gas with which it is highly charged acts also as a sedative to the gastric mucous membrane, and thus renders it well adapted to cases where there is much irritability of stomach.

I have used koumiss both as an exclusive diet and as an addition to an ordinary diet. In the former case the amount taken has been, at first, two or three fluid ounces every two hours; then, in the course of a couple of days, four fluid ounces every two hours; then six fluid ounces every three hours; and finally half a pint every three hours, or two quarts in the course of a day and night. This total I have rarely exceeded, though in a few instances as much as three quarts have been taken in divided doses. Usually, by the time two quarts had been taken daily for a short time, it has proved both possible and desirable to associate with it some simple solid food. When used as an addition to an ordinary diet, I have given it to the extent of one quart daily, in doses of half a pint in the intervals between meals. Formerly the high cost of this article was a serious objection to a prolonged use of it in large quantities, but now that it can be had at the rate of one dollar for three quart bottles, this objection has been largely done away with. I see no reason, however, why koumiss should not be made according to the above receipt, by any one who finds it inconvenient to obtain it from some of the recognized manufacturers, of whom there are several in Philadelphia and New York, if not elsewhere.

I must be brief in alluding to the conditions

in which I have found its use most beneficial, among which may be first mentioned, catarrhal phthisis. In this form of pulmonary disease, which, in this climate, is by far the most frequent variety of so-called consumption, the pulmonary trouble is often complicated with gastro-hepatic catarrh, either in a subacute form, or in the form of acute attacks recurring at irregular intervals. I think that all careful observers must have noticed how frequently in such cases milk disagrees, and oil cannot be taken. The difficulty of getting these patients to digest a sufficient amount of nourishing fat-making food is, indeed, one of the most serious points in their treatment. I can confidently advise the use of koumiss in this condition. The patient can usually make three light and simple meals, and in addition half a pint of koumiss can be taken early in the morning, between breakfast and dinner, between dinner and supper, and toward bedtime. A special advantage to be here noted is, that when taken at night it not only agrees well, but exerts a mild soporific influence. It is probable that the high reputation enjoyed by koumiss as a remedy in phthisis in some distant parts of the world is due to its excellent action in many cases of the class I have alluded to.

As an illustration of another condition not rarely met with in phthisical patients, I may quote the case of T. W., aged 24, who applied to me with extensive disseminated disease in the left lung, with a glazed, moist tongue, frequent vomiting, considerable diarrhœa, marked emaciation, and abundant expectoration. He lived on koumiss exclusively for two weeks, during the latter of which he also took small doses of eriodyction as an alternative expectorant. After the first day there was no more vomiting or diarrhœa. During the third week small quantities of solid food were given, in addition to the koumiss. In the fourth week skimmed milk was substituted, and now at the close of five weeks, he takes one and a half quarts of milk daily, besides a fair amount of solid food, all of which is thoroughly digested. He has gained five pounds in weight, and considerably in strength; cough and expectoration have diminished and there is slight improvement in the physical signs. Fluid extract of eriodyction has been given steadily, and for the past two weeks six grains of quinia have been taken daily.

As an exclusive diet, koumiss is adapted to all those cases where we employ milk in this way with such remarkable results, but, of course, it would have no special advantage, except in those peculiar instances where milk cannot be digested. Thus I have met with several cases of cardiac disease, with marked secondary hepatic and gastric congestion, where skimmed milk could not be digested, and where it was almost impossible to find any article of food that the patient could take, in which koumiss was used with entire success. In one such case, seen in consultation with Dr. Hollingsworth Neill, the patient, who had been suffering greatly from gastric distress, aggravated by all kinds of food, received immediate relief from the use of koumiss, which was taken with great relish for a long time.

As an illustration of its value in another kind of cases, I may refer to a patient with extreme nervous exhaustion and intense anæmia, who suffered violently from pyrosis and gastralgia. While out of bed it was impossible to secure improvement. Even when complete and prolonged rest in bed was secured, with the aid of massage, general electrization and faradization, it was equally impossible to feed her sufficiently so as to lessen the anæmia and relieve the distressing nervous symptoms. Milk was tried repeatedly, and always disagreed; its use, even in small quantities at stated intervals, caused intense distress. Iron could not be tolerated in any form; suppositories containing iron caused rectal irritation; hypodermic injections of dialysed iron (Wyeth's) caused abscesses. The internal use of the latter preparation of iron, as well as of many others, even in the smallest dose, produces suffering. In this trying condition, koumiss proved perfectly acceptable, and for a number of weeks the patient used it, first as the sole article of food, and later in addition to a very simple diet, with excellent results. Flesh was gained, strength increased, and the general nervous symptoms and the gastric distress rapidly improved.

It will immediately occur to many that kou-

miss must prove a very valuable remedy in diabetes mellitus, and so it does. I have had the opportunity of using it only in one such case, but here the immediate reduction in the amount of urine, almost to the normal, and the remarkable diminution in the proportion of sugar, showed conclusively its great importance as an exclusive article of diet in this affection. A diet of skimmed milk is often found of great service in relieving the symptoms in diabetes, but koumiss will probably be found much more desirable, since the sugar of milk is, for the most part, decomposed, while the carbonic acid gas acts as a grateful sedative to the irritable stomach. I think, moreover, that koumiss allays thirst better than milk does.

In the following case of simple polyuria, koumiss produced very marked and rapid results. E. S., a sailor, aged forty-three years, was admitted to the University Hospital, Dec. 20, 1877. He had had diarrhœa for three months, had lost a great deal of flesh, and was pale and weak. He complained greatly of thirst, and passed ten pints of urine daily, of low specific gravity, and containing neither albumen nor sugar. A diet of skimmed milk, with injections into the large intestine of weak solutions of nitrate of silver, quickly arrested the diarrhœa, but produced no effect on the polyuria. He was then allowed a mixed diet, and dialysed iron and ergot were given him for more than two weeks, in very large doses, but only a very slight decrease in the amount of urine followed, from ten to eight and a half pints, and he continued to lose colour, strength and flesh. On January 30th, all medication was stopped, and he was ordered to bed. The next day he was put on an exclusive diet of koumiss, one quart being given in the course of twenty-four hours. This was continued for one week, with the following effects: He lost three and a half pounds in weight, and passed urine on the successive days as follows: January 30th, eight and a half pints; January 31st, eight and a quarter pints; February 1st, four pints, two ounces; February 2nd, two pints; February 3rd, one pint, ten ounces; February 4th, one pint, seven ounces; February 4th, one pint, eleven ounces.

On February 6th solid food was conjoined with the koumiss, and finding that no increase in the amount of urine occurred, the latter was discontinued, and he was allowed to eat as much as he wanted of simple, nourishing food. His appetite was very good, and he ate freely, without the least inconvenience. His weight increased, according to the careful observations of my resident physician, Dr. Skillern, and of the head nurse, no less than twenty-one pounds in seven days. The extraordinary change in his appearance confirmed this statement, and I have no doubt of its entire accuracy. He soon felt perfectly well, there was not the least return of polyuria, and he was discharged to return to his calling.

I have thus briefly alluded to some of the conditions in which I have found koumiss of positive value. The results I have already obtained convince me that in suitable cases it will prove an important addition to our means of treatment.—*Med. and Surg. Reporter.*

DUBOISIA.—THE NEW MYDRIATIC.

M. Galezowski presented to the Society of Biology at the session of March 23, a new mydriatic preparation. This plant, for it is derived from a plant, comes to us from Australia, and belongs to the family of the scrophulariaciæ, according to M. Olivier, of London, who has studied it. It is called the *Duboisia myopsorida.*

According to the English ophthalmologist, Tweedy, a few drops of the solution of Duboisia produces dilatation of the pupil that lasts from six to ten days. From the investigations that he has made upon this subject, M. Galezowski has demonstrated that the paralysis of the sphincter of the iris and of the muscle of accommodation lasts for more than eight days in the healthy eye, but in the diseased eye the mydriatic effect is less persistent. He has employed this agent on more than thirty patients and it may to-day be said that the action of 1:20 solution of Duboisia is quite as powerful as the 1:10 solution of atropia. If we shall be able to prepare its alkaloid, we shall have without doubt an agent more powerful than any of those we have known of up to the present time. This is not all! The Duboisia plant presents

yet other advantages over atropia. An aqueous solution 1:20 instilled into the eye does not irritate the conjunctiva, while atropia provokes such an irritation that we are obliged to absolutely abandon its employment in certain individuals. M. Galezowski tells us that he has seen to supervene inflammations of the conjunctiva, ectropium, hallucinations, delirium and even convulsions in infants, following the instillation of a collyrium of atropia. The collyrium of duboisia does not cause these accidents, and where the atropia has had to be abandoned on account of its irritating effects, the new mydriatic may be employed with the most satisfactory results.

Our confrére reports also several observations that have been collected by one of his assistants, M. Adon Guéneau de Mussy ; they show, in the most conclusive manner, the efficacy of the extract of duboisia in the treatment of certain ocular troubles. In a girl suffering from severe keratitis trachomatosa, neither atropia nor daturine could be employed during more than a year without aggravating the difficulty ; with the *duboisia* the inflammatory condition was easily relieved, so as to allow the cauterizations of the lid to be continued.

In a man affected with irido-choroiditis in whom iridectomy failed to prevent repeated relapses of the inflammation, and when atropine only aggravated the difficulty, a collyrium of *duboisia* has arrested all inflammatory attacks for more than three weeks.

Finally, M. Galezowski said it was desirable to learn if the action of this collyrium extended to the internal ocular membranes. It is known that the action of atropine does not reach beyond the anterior hemisphere of the eye; the action of duboisia causes considerable dilatation of the retinal veins. If this fact is verified, we will have one of the most valuable agents for treating affections of the bottom of the eye.—*Le Mouvement Médical.*

[Further researches are promised on the subject, which will be given our readers as they appear.]—*Clinic.*

An enlarged clitoris, weighing two pounds, was exhibited at a recent meeting of the Pathological Society of London.

Original Communications.

CLINICAL REMARKS ON CATARACT AT THE TORONTO GENERAL HOSPITAL.

BY R. A. REEVE, B.A., M.D.,
Oculist to the Institution.

Hard Cataract.—This patient, Mrs. F., æt. 50, a healthy, active woman, first seen this morning, states that her sight has been failing for a length of time, and she found her left eye to be blind about a week ago. The eyes have been free from pain or inflammation, and they were of normal tension and appearance except that the left pupil had a grey reflex.

I have dilated the pupils with atropine, and you observe the left crystalline lens as a grey opaque disk lying just behind the plane of the iris. The right lens appears hazy and marked by grey striæ at its periphery. Taking the patient into the dark, ophthalmoscopic room, facing the lamp, and at about two feet from it, and focussing the light obliquely within the area of the left pupil with a strong lens (2¾in.)—*focal* or *oblique illumination*, the opaque lens becomes better defined ; and the striæ in the cortex of the right lens can be easily seen and located. Now, placing the lamp behind the patient's head, and a little on one side, and reflecting the light into the left eye with the ophthalmoscopic mirror, the pupil seems impenetrable and dark, while that of the right eye has an orange reflex with the lenticular striæ showing as dark or black peripheral lines. Still using the mirror, and placing the strong lens in front of the patient's right eye, I can readily perceive the optic disk, retinal vessels, choroid, &c. The sight of this eye still suffices for ordinary purposes. With the left eye the lamp-flame can be noticed in any part of the field of vision, the position of a window can be discerned, and also an object, as the hand, moving before the eye.

This case presents the ordinary features of uncomplicated cataract,—subjectively, a *painless*, gradual loss of sight without apparent cause ; it may be, one eye becoming useless long before the other : objectively, a healthy organ, with a moderately active pupil revealing a more or less opaque lens.

Cataract is simply opacity of the crystalline lens, and is termed *mature* when the whole lens substance is involved. As the lens becomes somewhat firm at about forty-five years, a cataract developing at and after that period is termed *hard* or *senile;* and also *nuclear*, because the denser nucleus of the lens is frequently opaque and of an amber tint, while the cortex is but partly invaded. Mature cataract can be pretty surely detected without artificial aid, but not so with the immature; and the sight is sometimes very dim from the posterior layers of lens tissue being opaque long before the rest of it is affected. As a rule, therefore, a diagnosis should not be made at a glance, even when the background of the pupil seems gray, but the method of examination just gone through should generally be followed. For there is a physiological haziness of the lens in old subjects which simulates cataract to the naked eye. Besides, dimness of vision is often due to morbid changes in the vitreous, or at the fundus only discernible with the ophthalmoscope; and again, cataract may follow or be secondary to other affections, as glaucoma, detachment of the retina, disease of choroid, &c., which would invalidate an operation.

It is important to note the *tension* or hardness of the eyeball, the degree of sight, and the extent of the field of vision. The tension is tested, as already shown, by gentle palpation with the tips of the index fingers upon the lid, the eye being closed; and it should specially be observed if there be a dilated or very sluggish pupil, so as to exclude *glaucoma*, the simple or chronic, non-inflammatory form of which not infrequently occurs in those of forty-five years and upwards. A hard globe, with a large, insensitive pupil indicates glaucoma, and the removal of a cataractous lens,—if such be present—in order to restore sight, would likely prove worse than futile. I was once asked by a brother practitioner to see a case in which he proposed to operate for cataract. The appearance of the lens was deceptive, for it was not opaque, but the eye proved to be glaucomatous, the optic disk being deeply cupped, owing to excessive intraocular pressure. Again, in simple cataract an object, as the hand, can be discerned when moved between the eye and a window or light, &c., and in a darkened room, the position of a lamp flame can be determined in any part of the field of vision.* In confirmed glaucoma, on the other hand, the inner or nasal half at least of the field is generally quite blind; while a blank in the lower or upper half would most likely be due to detachment of the retina in an opposite part of the fundus.

In the case before us the cataract is without apparent cause, and this is the common experience. Mal-nutrition of the lens may be considered the direct cause of cataract, and, as already stated, may be secondary to glaucoma, disease of choroid, diabetes, &c., or due to a jostling of the lens in its fossa or its luxation from concussion of the ball. There is often an hereditary tendency to cataract, and in many cases, too, it seems fairly attributable to excessive use of the eyes. The lens substance also becomes opaque under the action of the aqueous humour, when the latter has access to it through a puncture or rent of the capsule, as by a foreign body, instrument, &c.; and, again, where the iris is largely adherent to the lens capsule, owing to neglected iritis, secondary opacity of the lens often supervenes. In this instance the operation on the left eye will be deferred until the patient finds the dimness of the other begin to interfere with her work. Formerly, it was the practice not to operate until the second eye became blind, but it is now held that the anxiety and mental desuetude and the enforced physical inactivity caused by such delay militate against the success of the operation; and, therefore, the eye first involved is operated on while the cataract is yet ripening in its fellow. As, however, one eye often becomes blind many months or several years before the other, the operation on the eye primarily affected will generally not be required and as a rule should not be advised until its cataract is fully mature. Indeed, it may be several months after an eye has become practically blind before the lens substance up to the anterior capsule has become opaque.

* A patient was once under my care for sympathetic ophthalmia induced by an operation for cataract upon an eye that had been stone-blind for years, the surgeon having seemingly neglected to test the sight.

Senile cataract was formerly often treated by *couching* or *reclination*, that is, the lens was dislocated from its fossa backwards and downwards into the vitreous by means of a flat slightly curved needle passed through the sclera, behind the iris and against the face of the lens. This procedure is now virtually obsolete, and was discarded, although easy of execution, because the hard lens, in its new position, acted as a foreign body in a large percentage of cases, and excited irritation and inflammation which issued in complete blindness. In the modern operations the cataractous lens is removed from the eye, or "extracted," as you have already seen. Until recently "flap" extraction (fig. A.) was largely performed, the distinctive features of which are the use of a broad triangular knife; an incision dividing nearly one-half of the corneal margin either above or below from the sclera; and the evacuation or extrusion of the lens through the pupil without an iridectomy.

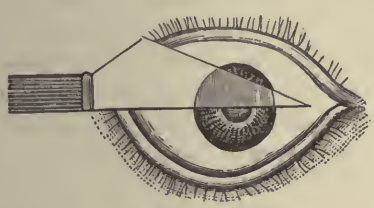

FIGURE A.

Now-a-days, some modification of the so-called "modified linear" operation, (fig B.) devised by the late celebrated Von Græfe, is generally done, its characteristics being, the use of a narrow or linear knife; iridectomy; and a somewhat curvilinear incision across the summit of the cornea.

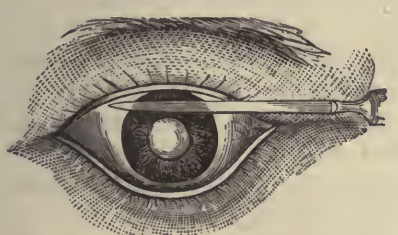

FIGURE B.

You have seen various cases in illustration of the latter method. The patient lying on his back in bed, with the lids separated by a stop-spring speculum, and the eye steadied by fixation forceps grasping the conjunctiva a little below the cornea, the knife, with its point directed towards the centre of the eye, is passed through the sclero-corneal junction a little below the top of the cornea into the anterior chamber at its upper and outer part; its handle being then depressed it is pushed quickly in front of the iris and made to emerge at a point horizontally opposite that of entrance (counter-puncture). The forceps being then laid aside, and the cutting edge of the knife directed upwards and forwards, the section is carefully finished so that its centre lies just within the corneal tissue, the patient being at the same time encouraged to avoid straining. The delicate iris forceps are then passed through the cut, a small fold of iris seized near the pupillary edge, withdrawn and snipped off. The speculum is then removed, the patient being warned not to squeeze the eye. The upper lid being then raised, the patient looking downwards, the cystitome or pricker is passed into the anterior chamber and its point drawn lightly over the capsule along the margins of the pupil. Careful pressure is then made against the lower part of the cornea with a small india-rubber spoon or curette; and the lower edge of the lens being thus pushed back the upper tilts forward, and engages in the wound, from which the lens emerges, the cornea being gently stroked upwards to favour the escape of any cortical matter. The pupil being clear enough to enable the patient to count fingers at two feet, and the lips of the cut being freed from any debris, straps of rubber and silk plaster are applied to the lids of both eyes, and then a light bandage, if it is thought desirable; or, preferably, the eyes are covered by a fold or two of dark silk, which is fastened to the forehead. Great care has to be taken during the operation to avoid compression of the globe by the operator or by contraction of the orbicularis, so as to prevent rupture of the hyaloid capsule and escape of the vitreous humour. Generally the patient is kept quietly in bed for forty-eight hours, using a feeding-cup and bed-pan p.r.n. The day after the operation the straps are gently washed off and a drop or two of sol. atropiæ sulph. grs. iv. ad ʒj. applied; and this is done daily for about a fortnight, straps or a bandage being used for a week, and afterwards a shade for a while.

The vision of the naked eye after extraction is quite defective, its refractive power being materially reduced and a very high degree of hyperopia produced by the absence of the lens. The aphakial eye requires, therefore, a powerful convex lens in order to focus rays from more or less distant objects upon the retina and secure correct vision.* Lenses of from $2\frac{3}{4}$ to $3\frac{3}{4}$ inches "focus" are generally necessary for ordinary wear; and as the accommodation is destroyed when the lens is removed, the clear perception of near objects as, print, &c., is only had by using still stronger glasses, namely, + $1\frac{1}{2}$ to $2\frac{1}{2}$. In some instances a cylindrical lens conjoined with the ordinary spherical improves the sight much more than the latter alone; and in the very exceptional cases where the eye was originally highly myopic a glass may not be required, or only one of a low power.

Advanced age is no bar to the operation, provided there be vitality enough to insure the healing of a wound so large as to give exit to the lens. I have had a patient aged eighty-five, and another eighty-three, both of whom did well and recovered good sight, being able, with proper spectacles, to go about as of yore, and also to read small print. Those who are inordinately fat or are prone to marasmus, and the victims of dyspepsia or alcoholism are not good subjects for extraction; but fair results are sometimes got by the modified linear operation in cases which would issue badly under the older flap method, for the latter, owing to the length of the cut and the less perfect coaptation of its lips, demands a much higher reparative power. Since sensibility becomes blunted in senility, extraction is generally well borne without anæsthesia; in fact, we have never employed it, and have seldom regretted dispensing with it.

Circumstances sometimes necessitate a departure from the ideal operation. You have seen that occasionally if the lens did not escape readily, the incision was enlarged a little at one end with fine scissors, the point of one blade being passed into the wound and between the cornea and iris. In some instances, again, where the patient was restive the knife was removed before the section was quite completed, a small bridge being left, which was divided after the iridectomy and laceration of the capsule. In the case of M. F——, whose palpebral aperture was abnormally small, the speculum and forceps were dispensed with. The upper lid was raised and pressed back against the edge of the orbit with the left index finger, the bulb of the middle one being placed against the inner side of the ball, to steady it. The section was then made *downwards*. No mishap occurred, and the patient recovered very good sight. The section at the upper edge of the cornea has the merit of hiding, more or less, the coloboma caused by the iridectomy. In the case of Mrs. R——, no iridectomy was required as that operation had been done several years previously for glaucoma, following ulceration of the cornea during gonorrhœal ophthalmia. The iridectomy had saved the eye: and the final result was excellent, the patient going out with vision $\frac{12}{10}$ with a + $3\frac{1}{2}$ lens, and with a + $2\frac{1}{4}$ able to read ordinary print, though the haziness of the cornea from the old ulceration interfered somewhat with the sight. In K—n's eye the iris was largely adherent to an opaque cicatrix of the cornea (leucoma adhærens), and partially also to the lens capsule. The knife was made to pierce the iris and pass through the anterior chamber behind it, and then cut its way out. The lens was with difficulty removed, but the patient finally recovered fair sight. In the case of L—— the cortex was fluid and freely escaped when the capsule was opened, leaving a nucleus so small that it would not readily present, though it came away at last without the use of a spoon. Occasionally some blood flows into the anterior chamber after the iridectomy, and requires removal by gently stroking the cornea towards the wound, the lips being made to gape slightly. It should be observed that the less the lips of the wound are irritated, and the anterior chamber disturbed by instruments, the less likely is inflammation to develop.

The most common serious mishap that occurs during extraction is escape of the vitreous. If the lens be not well engaged in the wound before the hyaloid ruptures, it will give place to the escaping humour and sink down behind the iris. This occurred in the

* With proper lenses, the final visual result is satisfactory in about 85 per cent. of the cases of extraction.

case of C——e, probably owing to the removal of a tough, opaque piece of capsule with forceps after laceration with the cystitome,—an expedient sometimes required: on applying the usual pressure to evacuate the lens, a bead of vitreous presented and the lens receded. A small "spoon" was at once passed through the cut directly backwards and then downwards behind the lens, which was brought quickly out with but moderate loss of the vitreous; straps and bandages being then applied. The eye was opened on the third day, when the wound was found closed, and on the fourth day the patient was allowed to get up. There was a slight reaction, but the inflammation subsided under atropine drops and hot fomentations. In a fortnight the pupil was clear, and there was no pain or irritation. The loss of vitreous is made up by aqueous humour, and one-fourth or more sometimes escapes, a good result finally ensuing. When, however, much vitreous is lost, detachment of the retina, or hæmorrhage from the intraocular vessels from want of support may be feared. In the case of Mrs. P——, the orbicularis was forcibly contracted just as the lens was emerging, and a good deal of vitreous was lost. The recovery was tedious and the sight imperfect.

The chief bad results following extraction are suppurative keratitis, iritis, and so-called secondary cataract. Suppuration of the cornea is generally a result as well as sign of impaired vitality, and is the more dangerous when it develops without acute symptoms. W. C——, admitted with double cataract, subject hereditarily to rheumatic arthritis, a sufferer from chronic alcoholism, had fallen from a highly respectable position in society to that of tally-keeper in a billiard-saloon; was kept on good diet and constitutional treatment for six weeks or more after admission. Then extraction by Liebreich's method was done, that is, the incision was made across the cornea, about midway between its lower edge and the pupil, and the lens was evacuated without an iridectomy, the pupil being quite dilatable. The lens came out entire, and there was no prolapse of iris. There was no inflammatory reaction, but on the third day the anterior chamber was turbid, and the lips of the wound were grey, and on the fourth day the cornea also had become infiltrated. Atropine and hot fomentations were applied, but the cornea shortly necrosed and the eye atrophied. This case teaches the lesson that both eyes should not be operated on at one sitting. Fearing that the patient's system was radically vitiated, another method was tried with the other eye, which, at any rate, would not seriously jeopardize it. Needling, *(keratonyxis)* was practised, and repeated at intervals during many months. The pupil being fully dilated, the lids were separated by a speculum and the eye steadied with forceps, the needle being then passed through the cornea near its margin and made to pierce the lens capsule and enter the lens as gently as possible so as not to disturb it in its bed. The eye was afterwards kept closed for several days and the pupil dilated. This patient's form became a too familiar one in the wards. The lens proved to be very hard and practically insoluble in the aqueous humour. Eighteen needlings were done without having drilled a hole through it or reduced it materially. At last, hoping that the regimen of the hospital had restored a fair degree of vigour, extraction was decided upon and done. The eye healed kindly, and five weeks afterwards the vision was $\frac{5}{40}$ with a + 3 lens. Finding, however, by oblique illumination that the posterior lens capsule was not quite transparent, a clear pupil was made in it opposite the normal one by means of a cataract needle, atropine being used for a few days. As some of you saw, vision finally reached $\frac{20}{xx}$ Snellen, with a + 3 lens, and with + 2 the patient could read the finest print. C—— is now a sober, reputable member of society, and engaged as a grain-buyer. It not infrequently happens that the posterior capsule becomes translucent, appearing under oblique illumination as a delicate gauze; and though it may be clear enough to enable one to see the optic disk and retinal vessels, its division with a needle is advisable as soon as the eye has healed thoroughly, namely, in from two to eight weeks.

The term, secondary cataract, is more properly applied to an opaque pupillary membrane resulting from a deposit of lymph on the posterior capsule from iritis or due to sclerosis of the capsule following retention of pieces of

cortical lens matter, proliferation, capsulitis, &c. In the case of F——, the eye was painful the day after the operation, and there was slight chemosis of the ocular conjunctiva, and infiltration of the lips of the wound. A mixed iritis, capsulitis, and localized inflammation of the cornea ensued, and was treated by instillation of sol. atropia sulph. grs. iv. ad ℥j. four times a day, frequent hot fomentations and occasional depletion from the temple by cupping. The pupil became closed by an opaque membrane to which the iris was adherent, and the patient could just discern a hand moved before the eye. Several months afterwards the operation termed *iridotomy* was done. The lids being separated by a stop speculum and the eye held by forceps, a lance-shaped knife (*keratome*) was passed obliquely through the lower part of the cornea, its point piercing the membrane: delicate, peculiar scissors known as Wecker's iridotomy scissors were then passed into the anterior chamber, one blade into opening and behind iris, when, with a snip, a clear, oblong, almost central pupil was made. The eye was closed with straps, and cold dressings applied, and it was kept under the influence of atropine. No re-action followed, and V = $\frac{2}{..}$. Iridotomy is a very effectual method of dealing with pupillary obstructions, and is much safer than the older expedients of using one or two needles, or a sharp hook, &c., to tear an opening in the tough membrane, or attempting to extract it.

Prolapse of the iris occasionally occurs after extraction before the wound has healed, owing to the restlessness or straining of the patient, or to too early getting up. No example has presented here. The prolapsed part may require to be snipped away, or the "hernia" may be pricked with a needle from time to time, and a pressure bandage worn. The latter treatment generally suffices also where the so-called *cystoid* cicatrix develops.

(*To be continued.*)

J. Von Lenhosék has constructed an apparatus which permits no fewer than sixty microscopical preparations to be observed in immediate succession, without changing the slides and readjusting the objective. He calls it the "Polymicroscope."

Translations.

From *Lyon Médical.*

The Diarrhœa of Children and its Treatment.

After a rapid exposition of the causes and symptoms of infantile diarrhœa, M. Blache insists upon the treatment proportioning the medication to the degree of intensity of the disease. As to the question of diet, he recommends regularity of the meals varying in number according to the age and energy of the child. He insists upon redoubling the vigilance at the time of evolution of the teeth, and especially at the epoch of weaning; the importance of continuing the use of milk in the alimentation of children, and of only abandoning it in persistent diarrhœa after having tried the employment of the various kinds of milk, (cow's, goat's, and ass's). As a preventive of intestine troubles, M. Blache advises the wearing of a flannel binder, which has the double advantage of protecting the children against chills, and of supporting the belly and preventing that tendency to swelling which occurs on the least intestine trouble. Whatever be the nature of the diarrhœa, its origin, its intensity, or the time elapsed since its inception, the treatment which the author proposes, modified according to the cases, has constantly been successful in his hands.

1st. Diminution of the nourishment; appropriate injections repeated as required; and the application of poultices to the belly.

2nd. Administer each morning, for three, four, or five days in succession, a small teaspoonful of a mixture of *equal parts of castor oil and syrup of acacia,* simply emulsionized by shaking the bottle at the time of giving the medicine.

In order that this medication may produce a curative effect it is necessary to give the mixture in very small doses, and to repeat its employment for several days in succession. Three or four days running is generally sufficient to modify the nature of the stools and to diminish their number. If after two days' treatment the diarrhœa is moderated without disappearing it should be suspended for a day, and then the same dose should be resumed, but after a day's interval. It is evident that in saying the

medium dose of the purgative mixture is a teaspoonful it is understood that the dose mnst be proportioned according as we may have to do with a child of six weeks or one of eighteen months. To be more precise as to the castor oil, let us say that a gramme suffices before six months and 2 or 3 grammes up to two years. In cases of an abundant and liquid discharge, repeated twelve or fifteen times, or even more, in the twenty-four hours, M. Blache doubles, or even triples the dose of the syrup, and adds to it Sydenham's laudanum (vinum opii) in small quantity, (1 to 3 drops at most in the twenty-four hours, according to the age.) In benign diarrhœas the purgative mixture is useless, and the use of chamomile injections for a day or two suffices to entirely arrest the laxity. When to the diarrhœa are added manifest signs of gastric derangement, M. Blache does not hesitate in the beginning to administer an ipecac. emetic, and when to a burning fever are joined nervous symptoms, giving rise to a fear of convulsions, he gives calomel in fractional doses before the castor oil. —*Journ. de Thérap.*

From *La France Médicale.*

Treatment of Erectile Tumours.

BY DR. VERNEUIL.

The *Gazette des Hôpitaux* contains a *résumé* of a lecture by M. Verneuil on the treatment of erectile tumours. The Professor passes in review the treatments successively recommended to remove this affection. Compression, multiple ligature, elastic ligature, canterization with caustics, and interstitial cauterization by means of needles red-heated either by fire, or by galvanization or the thermo-cautery. More recently the method of coagulating injections made by means of a Pravaz syringe armed with a gold or platinum needle has been much employed. The needle ought to penetrate deeply so as to deposit the coagulating fluid in the very centre of the tumour. It is sometimes necessary to puncture in several points of the circumference. It is not, however, necessary to make the needle penetrate into the very interior of the vessel; wherefore, in the case of voluminous tumours, after having injected some drops deeply, you should withdraw the needle a few millimetres, inject again a few drops of the liquid, again withdraw, and again inject the coagulant. It is known that the danger of this method is the production of an embolus, if the liquid penetrate too suddenly into a vascular ampulla and a clot be carried into the general circulation. To prevent this accident, fortunately a rare one, it is desirable to compress the circumference of the tumour for from three to five minutes, the time regarded necessary for the clot to become adherent to the vascular wall. M. Verneuil employs for this purpose the ring of an ordinary key. The coagulant fluids employed are:—

1. The perchloride of iron at 30°, diluted with one-half of water, so as to bring it to about 15°.

2. The iodo-tannic liquid in use at Lyon, which is less irritant, but forms clots less rapidly, and these, moreover, are less adherent.

3. In Italy, chloral diluted with one-half of water is recommended, but if this liquid is a good coagulant and is not toxic, unfortunately the clots formed at length dissolve, and Prof. Verneuil has observed relapses. M. Verneuil has also satisfactorily employed Piazza's liquid, of which, according to Dr. Th. Auger, the following is the formula: ℞ distilled water, and perchloride of iron, of each 30 grammes, of chloride of sodium 4 grammes. In one case in which M. Verneuil had to make four punctures in an erectile tumour on the arm of an infant, he deposited 3 drops only in each puncture, or in all 12 drops of the fluid.

From *La France Médicale.*

Treatment of Hiccough by Pilocarpine.

BY DR. ORTILLE.

Dr. Ortille, of Lille, in a letter published in the *Bulletin de Thérapeutique*, declares that in a case of obstinate hiccough in a man 65 years of age, who had been suffering for some years from the consequences of cerebral thrombosis, vertigo, scintillations, transient hemiplegia, vomiting, and lastly, persistent hiccough, he conceived the idea of injecting $2\frac{1}{2}$ centigrammes ($\frac{3}{8}$ths grain) of chlorhydrate of pilocarpine, and that a quarter of an hour after the injection, the hiccough had disappeared not to return again. The patient was covered with sweat, and salivation was set up.

From *Le Progrès Médical.*

Reflex Tremblings in Hemiplegia.

At the *Sociètè de Biologie* on 1st June, M. Dejérine made a communication upon the existence of a reflex trembling in the lower limb of the sound side in certain hemiplegias. The reflex trembling of the lower limb of the *paralysed* side, in certain hemiplegias, has been known for several years; we know that in cases where this phenomenon occurs, in order to determine its appearance it is sufficient to strongly flex the foot upon the leg; a rythmical trembling is then seen to occur impressing upon the hand of the observer a series of regular shocks. This trembling is known clinically under the name of reflex trembling of hemiplegias, and is rather commonly observed (*Vide* Charcot "Dis. of Nerv. System," Vol. II. p. 261 and 337). Up to the present this phenomenon has never been observed except in the paralysed limb. A series of researches, undertaken by the author with this view, shows in the clearest fashion that this trembling may present itself with absolutely similar characters in the lower limb of the *sound* side, and moreover, that it is met with in a rather large proportion of cases. Out of fifteen hemiplegics observed with this respect, the author has met with it five times, and in these five cases the trembling was so marked in both lower limbs, that at the first sight we might have thought we had to do with a paraplegia from compression of the medulla, or with a patchy sclerosis of spinal form. But in all these cases the limb opposite to the paralysed side was absolutely intact as far as mobility and sensibility were concerned. The explanation of this phenomenon is difficult enough, for, up to the present, autopsies have been wanting. Perhaps the lateral scleroses which are constant on the paralysed side in old hemiplegias, has in these cases invaded the lateral cord of the sound side.

Treatment of Rheumatic Gout.

BY A SUFFERER.

"Try lemon juice, or colchicum,
Unsweetened gin, or Bahia rum,
Or with gout pills your stomach cram,
Or mustard seed.
You might as well just suck your thumb—
You won't succeed."

An Invalid's Pastime.—A. Cameron.

A New Method of Reducing Luxations.

In the No. of *La France Médicale* for 8th May, M. Bazy thus describes his method of reducing dislocation of the shoulder. The same method is equally applicable to luxations of other joints.

"A wet roller is applied from the ends of the fingers up to the lower part of the affected arm, where it serves to fasten a loop, formed either by a piece of bandage or a napkin. Through this loop is passed a rubber band, which at its other end is fastened to a ring fixed in the wall. The rubber band is thus passed alternately through the loop and through the ring, so as to form an elastic cord of 5 or 6 duplications, and about 40 centimetres (16 inches) in length. This elastic cord is not stretched at the beginning of the operation. This done, the patient is seated on a chair, the arm being then in abduction and horizontal. A counter extending band is passed around the body, and to this band is fixed one of the hooks of a pulley-tackle, the other hook of which is fastened to some object. The cord of the pulley is then slowly tightened, the chair being pressed back with the feet so that the patient always remains seated." Reduction may thus be accomplished with great ease and with little or no pain in from 3 to 8 minutes. M. Bazy appends a table of 13 cases so treated at the *Hôpital Saint Antoine* during the year.

From *L'Union Médicale.*

Syrup for Rheumatism.—Siredey.

Iodide of potassium, 75 grains; Iodine, ¾ grain; Syrup of gentian, 4 ounces.

Dissolve.—One tablespoonful, morning and evening, in chronic rheumatism of the small joints. A vapour bath every second day; application of tincture of iodine over the affected articulations.—In cases of insuccess, substitute for the vapour baths, baths of arseniate of soda as recommended by M. Gueneau de Mussy.

Remedy for the Oxyuris Vermicularis.

M. Morelli has recognized the efficacy, in obstinate cases, of hydrate of chloral, and has prescribed it as an injection. Hydrate of chloral, 1 part; Pure glycerine, 4 parts.—*Lyon Med.*

From *Lo Sperimentale.*

Unilateral Luxation of the 5th Cervical Vertebra by Muscular Action.

BY VOELKER.

(Gazz. delle Clin.)

A strong workman bearing a weight upon his back, as was his custom, heard a crepitation in his neck and became unable to straighten his head: he experienced painful cramps which radiated from the nucha along his right arm. The head was inclined to the left, and its movements were restricted and painful. The muscles were markedly prominent on the right side of the neck, where they presented a rounder outline than on the left. The line of the spinal apophyses presented no sensible deviation: the 5th spinous apophysis was painful to pressure; and at this level on the right could be felt a slight projection which was continuous with the spine and was deeply situated between the trapezius and sterno-mastoid; on the left, on the other hand, there was a depression. Voelker raised the head of the patient, inclined it strongly to the left, and then impressed upon it a movement of rotation to the right; a click was heard, and restitution was accomplished and maintained. The diagnosis of luxation of the 5th cervical vertebra, unilateral and produced by muscular action, was confirmed by the facility of reduction.

From *La France Médicale.*

On the Inverse Type of Temperature as a Symptom of Miliary Tuberculosis.—The inverse type of the body temperature, that is to say, a high degree in the morning and a lower one at night, is a symptom of great clinical value in the diagnosis of miliary tuberculosis, either acute or consecutive to caseous pneumoria. Out of seventy-one subjects dead from phthisis, Prof. Prunniche has noted this type of temperature in the proportion of 63 per cent.

In the subjects who had succumbed to caseous pneumonia without miliary tubercles the proportion was 25 per cent., whilst in the caseous pneumonias with miliary tubercles the proportion rose to 85 per cent.—*Il' Morgagni.*

From *L'Union Médicale.*

Treatment of Epistaxis.—(Keetley.)

In cases of epistaxis, which are more troublesome than dangerous, and which almost always appear at an inconvenient moment, the author recommends lotions of hot water to the face and nose, and declares that he has obtained better effects from them than from cold water. He thinks that the hot water acts simply by diminishing the congestion of the mucous membrane, which is the primary cause of the majority of epistaxes. It is, of course, understood that this means is not applicable to those serious cases which require plugging.

In several cases in which the tampon, as well as the perchloride of iron have failed, Dr. George has succeeded in arresting the bleeding by prescribing the internal use of the extract of ergot of rye. Every quarter hour until the epistaxis ceases he administers a draught containing 15 minims of the liquid extract of ergot, (about 60 centigrammes, or 9 grains.) Even then, after the hæmorrhage is arrested, the patient should continue to take the same dose every quarter of an hour for a day or two. The author cites three observations in support of this mode of treatment.

From *Le Progrès Médical.*

At the *Société de Biologie*, on the 1st June, M. Albert Robin pointed out two unknown characters of the urine of interstitial nephritis. 1st. The presence in this liquid of a notable quantity of urohæmatine. 2nd. The existence, under the microscope, of crystalline, or amorphous pigmentary masses, and of *garnet masses*, probably formed of hæmatoidine.

It is interesting to compare these characters, observed in interstitial nephritis, with the urine of active globular denutrition.

From *L'Union Médicale.*

The Gastric Juice.

At the *Académie de Medecine*, on the 11th of March, M. Berthelot communicated a note from M. Richet, jun., upon the nature of the gastric juice which appears to be a chlorhydrate of leucine. M. Richet has succeeded in isolating the crystallized leucine. There, therefore, remains no doubt in this respect, and the question may be considered settled.

THE CANADIAN
Journal of Medical Science,
A Monthly Journal of British and Foreign Medical Science, Criticism, and News.

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending their addresses to the corresponding editor*

TORONTO, AUGUST, 1878.

☞ SUBSCRIBERS in arrears will greatly oblige by attending to the enclosed bills at their earliest convenience.

UNIVERSITY OF TORONTO.

THE NEW CURRICULUM IN THE FACULTY OF MEDICINE.

There is much hope for the future of medical education in Ontario. "The winter of our discontent is now made glorious summer" by changes recently effected in the curriculum in the faculty of medicine of our Provincial University. Remembering the flattering encomium expressed by Dr. Storrar, the chairman of Convocation of the University of London, on the standing of the University of Toronto, when the value of colonial degrees was lately called in question in the mother country, it is highly gratifying to witness this evidence of a determination on the part of the Senate of our University to prove worthy of that good opinion, and to emulate as far as possible the brilliant example of our great prototype. To the medical faculty of the University of London is chiefly due the unrivalled fame of that great source of academical distinction and foster-mother of sound scholarship. To the medical faculty of the University of Toronto is committed a no lesser trust. There is this difference, however, between the two degrees. That of the University of London confers a title to enrolment on the Medical Register of Great Britain; that of the University of Toronto will probably confer a somewhat similar privilege in the old country, but in our own land is regarded as one of purely honorary distinction, and carries with it no right whatever in connexion with professional practice. Hence arises here the greater need of making that degree which confers pure honour, unalloyed with sordid interests of baser sort, an honour to possess by reason of the thorough training and the high attainments it exacts.

A University degree in whatever faculty should be an evidence of general culture and refinement, as well as an attestation of special professional or scientific attainments. While, therefore, it would be harsh to exclude from any examination entitling to practise those whom the *res angustæ domi* had prevented from obtaining more than the rudiments of a liberal education, it would on the other hand be derogatory to the dignity and fatal to the highest interests of the Provincial University to continue to confer degrees in the faculty of medicine upon men whose literary attainments were of a character to detract from rather than reflect credit upon the "testamur" of the representatives of their *alma mater*.

We are equally pleased to observe that a *quasi* premium has been placed upon the attainment of honours in the department of natural sciences in the arts-course by absolving graduates in arts holding such distinctions from the payment of the matriculation fee in the faculty of medicine. Any future changes in the regulations referring to matriculation, we trust will be in the direction of elevating still further the standard of that examination.

Coming now to the "Regulations relating to undergraduates," it is with pleasure that we exercise the privilege of continuing to speak of these enactments in terms of highest commendation. The course herein adopted of requiring undergraduates to pass the examinations of each year at the appointed time, and rendering failure to do so a bar to further progress, until such time as this regulation shall have been complied with, is, in our opinion, one of the most important and desirable of the changes which could possibly have been made. We are persuaded that it cannot fail to redound to the highest advantage of those affected by it. The subclauses providing

for cases of sickness, and failure in one or two subjects, with evidence of proficiency in the rest, will prevent the application of this regulation from being unduly rigid or severe.

Here, again, graduation in arts in the University, with honours in the department of Natural Sciences, very properly confers a certain advantage, such graduates being exempt from the first professional examination and ranked in the first-class honour list of that examination. They are, of course, however, obliged to take the anatomy of that examination along with the second professional examination. Fixing the pass standard at 50 per cent. of the maximum number of marks in all subjects, and at 33⅓ per cent. in each individual subject, is not being excessively exacting; and we think that any future changes will have to be in an upward direction. However, for the present this will suffice. The exaction of certificates of practical and laboratory instruction in anatomy, inorganic chemistry, natural philosophy, botany, zoology, histology, physiological chemistry, practical pharmacy, chemistry in relation to hygiene and forensic medicine, the dissection of the human body twice, proficiency in vaccination, clinical instruction in a public Lunatic Asylum, and attendance upon twelve autopsies, is an innovation fraught with the highest utility, and calculated beyond all cavil to secure thoroughness of training and practical proficiency. It is quite clear that the outcome of these clauses, and, perhaps to a certain degree, their design, is to compel attendance at the new government school of practical science, as being the only place at which the facilities for complying with many of these regulations can be obtained.

The clinical instruction in lunacy will be especially valuable, this being a department of medicine now too much neglected by practitioners in general, since, for the most part, they alone are called upon to diagnose and treat the incipient and curable stages of those morbid physical processes whose issue is "the mind diseased." In the honour course seventy-five per cent. has been fixed as the minimum of marks entitling a candidate to be ranked in the first class, and sixty-six per cent. in the second class, at any of the professional examinations; and at the final examination for the degree of M.B., only those candidates will receive first-class honours who have been placed in the Honour List in all of the four professional examinations, and who have succeeded in obtaining first-class honours in at least three out of the four. In order to be placed in the second class Honour List at the last examination the candidate must have been placed in the Honour List in three out of the four professional examinations, and must have succeeded in obtaining first-class honours in at least one of the Professional examinations. This regulation will, very properly, render honours at the last examination very difficult to obtain, and also makes them contingent upon manifested proficiency throughout the course.

One of the most laudable changes in the whole curriculum, and one in complete consonance with the spirit of the age, is the institution of clinical examinations in medicine and surgery at the third and fourth professional examinations. What is still required to make the amendments well-nigh perfect is a demonstrative or practical examination in the subjects of anatomy, pathology, histology and materia medica, such as have been provided for in chemistry. As far as attendance upon didactic lectures is concerned, the curriculum manifests an inclination to subject students to over-lecturing, unless, indeed, the requirement of attendance upon so large a number of lectures should lead to the very desirable result of inducing the teaching bodies to extend the length of their winter sessions to nine months, and to relegate certain subjects (botany, materia medica, hygiene, &c.,) to the summer session. The requirements for admission to the degree of M.D. remain the same as heretofore.

Much propriety and wisdom appears to us to have been manifested in excluding graduates or undergraduates in medicine in any other University from competing for the scholarships or medals. These enactments are prospective, and the regulations relating to the first professional examination come in force in 1879; those for the second, in 1880; for the third, in 1881; and for the fourth in 1882.

The effect of these regulations will doubtless, at first, be to very materially curtail the number of candidates for graduation in the Faculty of Medicine. The honour of possessing a degree in medicine from the University of Toronto will be augmented in direct proportion to the stringency of the requirements and examinations necessary thereto. The degree will thus come to be much coveted by all our students and practitioners of medicine, and will, moreover, be of much practical advantage to its possessor as an evidence of more thorough training and higher attainments than any other in the Province. Even should this prophecy fail of fulfilment the promoters of this new curriculum will have the unbounded satisfaction of feeling that they have taken a long and much-needed stride forward in the cause of medical education in our midst, and of knowing that in these their laudable endeavours they have the sympathy and good wishes of all lovers of the University of Toronto and the friends of higher education throughout the land. From no source other than this fountain-head of scholarship and learning in the land could this commendable step in the right direction have more appropriately come, and we feel that we cannot conclude this notice of the change without expressing the great indebtedness of all to the members of the Senate, and especially to the learned Vice-Chancellor of the University of Toronto for having grappled with this vitally important subject, for the good example they have set and the impetus they have thereby afforded the cause of medical education in the Province. "*Longum iter est per præcepta, breve et efficax per exempla.*"

College of Physicians and Surgeons of Ontario.—The Committee appointed by the Council have purchased the building known as the Bay Street Presbyterian Church, but will not obtain possession of it till next spring. The price paid was $13,000.

Canada Medical Association.—As will be seen by advertisement this Association meets in Hamilton on September 11th. We hope to see a large attendance and hear many interesting papers. *Verbum sap.*

Toronto Medical Society.—This Society was successfully inaugurated on May 16th, when the constitution and by-laws were adopted and the following officers elected:—President, Dr. Joseph Workman; 1st Vice-President, Dr. W. Canniff; 2nd Vice-President, Dr. C. W. Coveruton; Treasurer, Dr. L. McFarlane; Recording Secretary, Dr. J. E. Graham; Corresponding Secretary, Dr. I. H. Cameron. Council, Drs. Geo. Wright, Fulton, and Burns. The Society has met regularly every other Thursday, and many interesting papers have been read and discussed. As opportunity offered, members have presented pathological specimens. We hope next month to be able to give a brief account of the work done up to that time. The Society has a large membership, and is supplying one of those "*wants long felt.*"

Book Notices.

Antagonism of Alcohol and Diphtheria. By E. N. Chapman, A.M., M.D., Brooklyn, U.S.

Thirteenth Annual Announcement of the Medical College, Evansville, Indiana. Session 1878-79.

Rectal Alimentation. By William Bodenhamer, A.M., M.D. New York: William Wood & Co., 27 Great Jones Street, 1878.

Medicine—The Present and Future. An Address delivered to the Graduates of Evansville Medical College, Feb. 27, 1878. By J. W. Compton, M.D., Saint Louis, 1878.

Etude Expèrimentale et Comparèe sur L'Arsenic et L'Huile de Foie de Morue dans le Traitement de la Phthisic Pulmonaire. Par Joanny Rendu. Paris: G. Masson, *Librarie Editeur*, 1878.

Amputations and Excisions of the Cervix Uteri; their Indications and Methods. By J. Byrne, M.D., M.R.C.S.E., Surgeon-in-Chief of St. Mary's Hospital for Diseases of Women, Brooklyn, N.Y. Reprint from Vol. II. Gynecological Transactions, 1878.

After a careful observation of a number of selected cases for three months, some under a tonic expectant treatment, others treated with arsenic, and a third series with cod liver oil, the results arrived at by the author are that the patients treated expectantly or by arsenic, always lost weight, whilst those under cod liver oil gained weight and strength. A daily record of temperature, sweating, diarrhœa, weight, and strength, as tested by the dynamometer, is given. The cases selected were those in which the diagnosis was certain, and the disease pursuing a chronic course.

Meetings of Medical Societies.

MEETING OF THE WESTERN AND ST. CLAIR MEDICAL ASSOCIATION.

The twelfth regular meeting of the Western and St. Clair Medical Association was held at the Biddle House, Detroit, on Tuesday.

The following members were present:

Dr. Bucke, Superintendent Insane Asylum, London; Drs. Bray and Holmes, Chatham; Dr. Rutherford, Chatham; Dr. Flemming, Chatham; Dr. Fraser, Sarnia; Dr. Lambert, Windsor; Dr. Coventry, Windsor; Dr. Casgrain, Windsor; Dr. Tye, Thamesville; Dr. Edwards, London; Dr. Van Velsor, Blenheim; Dr. Beemer, Asylum, London.

There were also present a large number of professional brethren from Detroit, among whom were the following:—Profs. McGraw, Gilbert, Jenks, and Drs. Claland, Rouse, Connor, Lundy, La Ferte, Hawes, Smith, Brodie, Shurley, Gregory and Barclay, of Detroit; and Dr. Langlois, of Wyandotte, Michigan.

The meeting was called to order at one p.m., with the President, Dr. Tye, in the chair.

The minutes of the last meeting were read and confirmed.

A telegram from Prof. McLaren, of Ann Arbour, regretting his absence, and a letter from Dr. Abbott, of Chatham, saying that he would read his paper at the next meeting in London, were read by the Secretary.

General business came next in order. Dr. Bray observed that on account of the meeting being held at Detroit, and of the large attendance of visiting brethren to whom purely business matters would be uninteresting, it would be advisable to defer such business, none of which was pressing, till the meeting at London. Dr. Coventry contended that business questions should be considered whether interesting or otherwise to the Detroit brethren. He then objected to the change of place of meeting, and moved that the meeting should adjourn to Windsor. Dr. Casgrain seconded the motion. Drs. Bray and Bucke explained that the subject of change of place of meeting had been fully discussed at the last meeting, and that four distinct advantages were mentioned to each member in the territorial division for holding meetings in Detroit and London semi-annually.

Dr. Bray moved an amendment to the motion that further discussion upon this subject be postponed until next meeting.

Dr. Lambert seconded the amendment, which was carried.

Dr. Coventry remarked that as he could not carry his motion he saw no use of remaining, and walked out of the meeting.

A very excellent paper was then read by Dr. Holmes on "Some of the Therapeutic Uses of Cold Water." The paper was of such practical utility to the general practitioner that nearly all present took part in discussing the arguments presented in it.

Prof. McGraw then read a very carefully prepared and eminently scientific paper on "Diagnosis and treatment of malignant growths." It was listened to with the undivided attention of the hearers, and served to diffuse new and important light upon this branch of surgery. A vote of thanks was tendered the Doctor for his essay.

Papers were promised for the next meeting by Drs. Smith, Abbott, Rutherford and Fraser.

The meeting was then adjourned to assemble at London in January, 1879.

N. H. BEEMER, *Secretary.*

The Bathurst and Rideau Medical Society held their Annual Meeting on June 29th, and elected the following officers:—President, Dr. Grant; 1st Vice-President, Dr. Cranston; 2nd Vice-President, Dr. DesLoges; Treasurer, Dr. Hill; Secretary, Dr. Lynn.

Miscellaneous.

Camphor and Tobacco.—In an article in the *Practitioner*, Dr. Edward Noakes says that in cases of overdose of tobacco, as in the sickness from smoking, etc., a dose of camphor has repeatedly proved antidotal in his hands.

M. Anglada, Prof. of Internal Pathology at the Faculty of Medicine of Montpellier, died at the end of April, aged 69. The Faculty of Nancy also lately lost one of its most distinguished masters, Rameau, Prof. of Medical Physics.

Alkalinity of the Blood.—M. Lepine has been engaged upon researches on the variations of the alkalinity of the blood in disease. In order to determine them he mixes 1 c.c. of blood with a sufficient quantity of oxalic acid to render the mixture acid. He has observed that in chronic articular rheumatism the alkalinity of the blood is always less than in the normal state.—*Lyon Med. Soc. de Biol., Paris.*

One of the most eminent and universally beloved members of the profession in Hungary has just passed away in the person of Dr. Kovacs-Sebestény Endre of Budapest. He was the intimate friend and professional adviser of the great Hungarian patriot Déak, and during life enjoyed many marks of his sovereign's personal favour.

Fatal Pistol-Shot without Perforation of the Skin.—Dr. Hofmann (*Lehrbuch der Gerichtlich, Medicin*, 2 Band, Wien, 1878) relates the following remarkable case. A man, aged 40, fired a pistol-shot at himself in the region of the left breast. A skin-burn resulted of the size of the palm of the hand, but no rupture of continuity of the external skin. Beneath this, there was an effusion of blood; the costal cartilage was broken. In the pericardium lay a pound and a half of blood; and at the apex of the heart, on each side of the longitudinal sulcus, was a rent of the muscular fibres, extending into the cavities of the ventricles.—*British Medical Journal.*

Lactopeptine.—In the treatment of Infantile Diarrhœa produced by imperfect digestion, we have had most satisfactory results from the use of Lactopeptine, also in cases of Impaired Digestion in old persons. This is one of the most valuable pharmaceutical preparations that has been placed in the hands of the profession. We take pleasure in attesting to its value from a considerable experience in the use of it.—*Cincinnati Lancet and Observer, Jan.* 1878.

Auguste Alphonse Amussat, born in Paris, on the 25th September, 1820, died in the same city, on the 31st May, 1878. His thesis for the doctorate was on the subject of the "Employment of Water in Surgery." Besides this his literary labours consisted chiefly in editing his father's papers, and a number of memoirs of his own on the use of the galvano-cautery in various affections. With him dies out a name borne with distinction by three generations of physicians.

Nervous Phenomena of Uræmia.—M. Picard sent to the *Société de Biol.* a note upon the cause of the nervous phenomena of uræmia. He has succeeded in producing eclamptic attacks in the dog, by injecting rapidly a concentrated solution of urea. In these cases urinary excretion ceases; but if the injection be made slowly, or if the dose be not strong enough, there occurs, instead of the uræmia, an abundant diuresis, and, the urea being eliminated along with the urine, there is no eclampsia.—*Lyon Médical.*

Cause of Contraction of Pupil from Morphia.—M. Picard sent to the *Soc. de Biol. de Paris* a note upon the mechanism of pupillary contraction under the influence of morphia. It appears to be due not to an excitation of the motorius oculi communis, but to a paresis of the great sympathetic. For if a small vein from the submaxillary gland be laid bare and opened, the flow of blood will be seen to increase after the injection of morphia; a result not modified by section of the chorda tympani. Morphine therefore produces a weakening of the action of the sympathetic.—*Lyon Médical.*

Treatment of Whooping Cough.—MM. Louvet-Lamare and Constantin Paul have great confidence in *drosera rotundifolia*. During the first period, for the bronchitis they recommend bryonia; during the second, as a sedative to the cough, the drosera, (1 to 5 grammes—*M*xv-lxxv—of the tincture). M. Louvet-Lamare recommends, besides the muriate of ammonia in the daily dose of half a gramme (7½ grains) for a child seven years of age, when there arises, as frequently occurs, that inflammation limited to the lower part of the pharynx, the larynx, or upper part of the trachea, causing the thermometer to rise to 38°5 or 39° (101°-102° Fahr.) and characterized by a harrowing cough, without any new sign occurring in the chest.—*Lyon Médical.*

Transverse Lines on the Surface of the Nails after Disturbances of General Health.—Mr. J. Hutchinson says, in the *Medical Times and Gazette*—It has been observed that during febrile ailments and various other more or less acute derangements of health, the nutrition of the nail suffers. A record of each relapse or excerbation, permanent during the life of the nail, is left on its surface in the form of a transverse furrow. As the age of an oyster may be reckoned by counting the ridges on its convex shell, so in these cases may the number of relapses and the relative duration of the intervals be estimated. Dr. Wilks, in his original short article on this subject (*Lancet*, January 2nd, 1869, page 5), infers, from the known rate of growth of the nail being equal to two full lengths a year, that furrows on the middle of the nail indicate an illness three months before.

Citrate and Bromhydrate of Caffeine.—At a recent meeting of the Société de Thérapeutique in Paris, M. Gubler pointed out the diuretic properties of citrate and bromhydrate of caffeine, in doses of fifty *centigrammes* (seven grains and a half), in the form of hypodermic injection. The diuretic effect is almost immediately produced, whilst with digitalis it is delayed for two or three days. Caffeine may be given as a draught for the same purpose, in doses of thirty *centigrammes* (four grains and a half). Caffeine increases the vascular tension less than digitalis does. The maximum action of digitalis is reached on the fourth or fifth day; and, if the administration of digitalis be prolonged, an accumulation of action is produced—that is to say, an opposite result to that desired. M. Gubler generally prescribes the alcoholic tincture, in doses of twenty drops. If the kidneys do not yield to the action of this remedy, M. Gubler pronounces them to be incapacitated for use.—*British Medical Journal.*

From *Le Progrès Médical.*

Effects of Purgatives on Intestinal Secretion and Excretion.—At the *Société Biologie*, on the 8th day of June, M. Leven narrated the result of his investigations into the functions of the intestines. Experiments formerly made are defective in this respect, that the opening of the abdomen and the manipulation of the viscera modified the physiological conditions. M. Leven studied the secretions and excretions after the administration of purgative substances. Salts, notably the sulphate of magnesia, do not give rise to secretion, but to the excretion of a neutral liquid, rich in chloride of sodium, and free from albumen. With castor oil, on the contrary, the liquid is albuminous. Charcoal, improperly regarded as a mechanical purgative, gives rise neither to secretion nor excretion. Lastly, after the administration of drastics, the intestinal liquid, rich in chloride of sodium and in albumen, contains besides an enormous quantity of leucocytes, which afford evidence of active inflammation.

"The sulphate of magnesia produces excretion, but not secretion; no albumen is found in the excreted products. The purgatives, improperly called mechanical, such as castor oil, produce a liquid charged with albumen in rather large quantity, and with chloride of sodium. Drastics produce an aqueous liquid charged with chloride of sodium, and with albumen in double or treble the quantity of that from castor oil, and containing besides an enormous quantity of leucocytes."—*Gaz. des Hôp.*

THE METRIC SYSTEM IN MEDICINE.

	Gms.
M, i. or gr. i. equals	06
ʒi. or ℥i. "	4
ʒi. or ℥i. "	32

The decimal *line* instead of *points* makes errors impossible.

C.C. used for gms. causes an error of 5 per cent. (excess.)

A teaspoon is 5 gms. ; a tablespoon, 20 gms.

EQUIVALENTS.

Troy Weight.	Grams.	Troy Weight.	Grams.	Troy Weight.	Grams.
Grain 1-60	.001	Grains 12	.78	Grains 200	12.96
" 1-30	.002	" 15	.97	" 240	15.55
" 1-20	.003	" 16	1.04	Drachms 6	23.3
" 1-16	.004	" 18	1.17	" 8	31.1
" 1-12	.005	" 20	1.29	" 10	38.9
" 1-10	.006	" 24	1.55	" 12	46.6
" 1-8	.008	" 30	1.94	" 14	54.4
" 1-6	.011	" 36	2.33	" 16	62.2
" 1-4	.016	" 40	2.59	" 20	77.7
" 1-3	.022	" 50	3.24	" 24	93.
" 1-2	.032	" 60	3.89	Ounces 4	124.
" 1	.065	" 80	5.18	" 5	155.
" 2	.13	" 90	5.83	" 6	186.
" 3	.19	" 96	6.22	" 7	217.
" 4	.26	" 100	6.48	" 8	248.
" 5	.32	" 120	7.75	" 9	279.
" 6	.39	" 150	9.72	" 10	311.
" 8	.52	" 160	10.37	" 12	372.
" 10	.65	" 180	11.66	" 16	496.

Pamphlets and circulars discussing and explaining the metric system can be had free, or wil[1] be mailed on receipt of postage.—*From Metric Bureau, Boston.*

Two Remarkable Accidents.—In the transactions of the Medical Society of New Jersey, for 1877, Dr. Ryerson reports the case of a child which lived four weeks with over an inch of No. 1 sewing needle in the heart. Search for the needle before death was unsuccessful. At the autopsy it was found to have passed partially through the cartilage of the fourth rib, into the wall of the right ventricle. Pus welled up through the perforated cartilage, and loose in an abscess holding an ounce or more of pus, in the muscular substance, lay the needle. It was supposed that until loosened by suppuration the broken end of the needle remained fixed in the rib, thus pinning the heart to the chest wall. A still more remarkable accident, with recovery, is reported in the Transactions of the Medical Society of Pennsylvania, for the same year. In this case a boy of fourteen was impaled on the end of a carriage shaft, the point of the shaft entering one inch below the left nipple and coming out at the back. The victim was swung three times into the air by the rearing of the horses, then pushed himself off, and walked home with some assistance. No cough or hemoptysis followed and apparently little shock. Effusion into the pleura occurred with discharge of pus, front and back. This gradually lessened, and finally both wounds closed, the one in the breast last. The boy has recovered robust health.—*Clinic.*

Births, Marriages, and Deaths.

BIRTHS.

At Toronto, on Sunday, July 9th, the wife of Dr. W. W. Geikie, of a son.

MARRIAGES.

At Invermara, Orillia, on July 2nd, K. N. Fenwick, M.D., Kingston, to Tina Laura, youngest daughter of Robert Stirling, Esq.

On June 19th, at Cornwall, Sandford McVittie Lloyd, to Mary Beatrice, second daughter of J. I. Dickinson, M.D.

On the 3rd inst., at the residence of the bride's mother, Riverside House, Harwich, by the Rev. J. Wakefield, George A. Tye, M.D., of Thamesville, to Louisa McIntyre.

THE

Canadian Journal of Medical Science.

A MONTHLY JOURNAL OF BRITISH AND FOREIGN MEDICAL SCIENCE, CRITICISM, AND NEWS.

U. OGDEN, M.D., *EDITOR.*

R. ZIMMERMAN, M.D., L.R.C.P., London, *171 Church Street Toronto, Corresponding Editor.*

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TORONTO, SEPTEMBER, 1878.

Selections: Medicine.

SPINAL IRRITATION.

BY JOHN E. LOCKRIDGE, M.D.

From a long and varied experience in the management of this protean complaint, denominated "spinal irritation" by such writers on the practice as recognize it as a separate disease, I have long since come to the conclusion that it is a disease *per se*, if not indeed *sui generis*. The name is apt enough, it is true, to call attention to the seat of the trouble; but when we come to enumerate the symptoms and manifestations of the disease, we will find that the spine is just about the last part of the economy that we would suspect of being in arrears in its physiology. But, inasmuch as a name intelligibly expressive of both the pathology and accompanying phenomena of the complaint must needs be paraphrastic, I will content myself at this place with a retention of the old appellation, and when treating of the nature and symptoms of the disorder attempt to elucidate some points hitherto doubtful; and will close this paper by annotating a few cases in point.

The *symptoms* of this disease are as numerous almost as there are organs and parts in the body whose functions can be disturbed by alterations from health in the spinal centre, from which in part they derive their life and control. These disturbances will occur from above downward, as the so-called irritation may happen to be located in the cervical, dorsal, or lumbar vertebræ. I will enumerate some of them. Beginning with the organs of digestion, I have seen, amongst others, dysphagia from paralysis or tonic spasm of the gullet; apparent stricture of the same; gastralgia, spasm of the stomach, nausea and vomiting, and almost every variety of dyspeptic symptoms. In the respiratory and circulatory organs I have often met with aphonia, spasm of the glottis, asthma, a kind of nervous cough, singultus, and an inability to take a full inspiration; palpitation of the heart, and bellows murmur of the same, intermittent pulse, and feigned cardiac disease of divers kinds and degrees. There are also pains and sensations, either fixed or fleeting, in different parts of the body—in the neck, chest or abdomen. These symptoms will persist in spite of the ordinary rational treatment; or after having been relieved, will recur time and again.

If now the practitioner examine the spine, which is not complained of or suspected, to his surprise he will find a point tender on pressure; the patient will start up as if electrified, and complain of the heart or stomach, or be thrown into an attack of asthma, or palpitation, or gastralgia, or colic, as the case may be, or as the organ is under the control of nerves sent out from the point irritated. The pressure should be made very carefully with the index finger downward between the spinous processes, and laterally between the same, as well as between the arches of the vertebræ; and if the patient be over-sensitive to touching, or if there be any doubt in the mind of the practitioner, as to the real existence of tenderness, he should dip a sponge in hot water and pass it slowly down the column, and if tenderness exist at any point the patient will surely give some

sign. The tenderness may be confined to a single intervertebral space, or there may be several together tender, with one more so than the rest, gradually shading off; or again the whole spine may be hyperæsthetic on pressure. In short, I would insist that a careful examination of the spine be made in every case suffering from one or more of these pains, aches, spasms, or sensations, whether fixed or fleeting, without fever or appreciable organic change to account for so great and often so persistent suffering; and especially if the symptoms persist or recur after a careful course of anodynes, antispasmodics, and alteratives. I have, time and again, seen cases of apparent cardiac disease, or gastralgia, resist ordinary treatment for years, and finally yield promptly and permanently under treatment directed *wholly* to the spine; and I am sorry to say that I have been called upon to treat a recurrence of neuralgia of the stomach, colic, and the like, half a dozen times in a year, and I never did suspect the true nature of the trouble.

The *nature* of this disease is not well understood. Pathologically it is entirely distinct from active congestion, inflammation, atrophy or hypertrophy, induration or *ramolissement*, or any other affections of the medulla spinalis involving organic lesions or destruction, with the resultant paralysis of the parts below. Nor have I ever seen it, to any great extent, influence locomotion; sometimes, however, a slight degree of numbness or anæsthesia is complained of in the extremities. Its nature has generally been ascribed to a rheumatic or gouty condition of the ligamentous structure of the spine. This must be erroneous in the vast majority of cases, at least; for, in the absence of any history of rheumatism or gout in any other portion of the body, and in the total absence of pain or uneasiness about the spine even on movement, it is difficult to imagine that either of these could exist for months and even years without having been suspected.

In the absence of an opportunity to observe the morbid anatomy, I have long since regarded it as some kind of *passive congestion* of the membranes of the cord, and most likely the *pia mater*, arachnoid, and the loose areolar tissue by which the latter is connected with the medulla spinalis. The engorgement may be sanguineous or serous, or both. The arachnoid is scarcely susceptible of congestion itself, but the surrounding areolar tissue is, and the irritation is most often met with in the cervical and dorsal regions, where this tissue is most abundant. Some anatomists contend that these slender filaments of areolar tissue are nervous fasciculi, and that they arise from the arachnoid, and are analagous to those of the sympathetic, and that there are also ganglia to be found here. But, be this as it may, it is very easy to understand how any alteration in structure here from congestion or infiltration, or both, must irritate the outgoing spinal nerves, which impression will be conveyed centrifugally, giving rise to the symptoms enumerated. In those cases in which the disorder is manifested in the internal organs, which indeed are very numerous, the impression is conveyed through the catenation of the spinal nerves with the external branches from the ganglia of the great sympathetic, by which system most of the organs are richly supplied, and some of them, indeed, exclusively.

The *cause* of this disorder is, in many cases, obscure. It is most often met with in the higher walks of life, in those who lead an inactive life; in those of a nervous or phlegmatic temperament, whose organization is rather below the healthy standard; and in such women as are disposed to hysteria. In the South, it is often met with in the case of ladies of lethargic habits, and who are indisposed to locomotion. It is more often met with in women than in men, and more often during the years of menstruation than before fourteen and after forty-five. Girls under fourteen and men are by no means exempt from it; but it very rarely occurs in boys. I am very sure that whatever tends to enfeeble either of the great systems of the organism, whether during employment or leisure, or whatever favours local congestions, superinduces this disease. I have often met with it in the cases of sewing-girls, school-girls, teachers, and ladies who spend much of their time at embroidery and needle-work. Diseases and displacements of the uterus of long standing afford a fruitful cause.

The *diagnosis* of the disease is by no means difficult; yet I have reason to believe that many cases have gone on for months, and even years, without having their true nature ever suspected; and a careless or inexperienced practitioner might direct his treatment quite a while to an alleviation of the symptoms before suspecting the true nature of the trouble. One of the most remarkable features, indeed I will say an almost pathognomonic symptom is the entire absence of pain or uneasiness of any kind at the point of spinal irritation, except on pressure. This is true in the vast majority of cases, notwithstanding the most varied motion. It is the absence of this pain that usually throws the physician of his guard. Another important sign is the singular absence of fever, notwithstanding the feigned disease in some organ or structure may be violent and persistent, with a great degree of resultant soreness on pressure.

The disease is, of course, most apt to be confounded with organic or functional diseases of the organs implicated, and in the organs the disorder is apt to be attributed to some delinquency inherent to the structure itself. The absence of fever, a careful examination for structural changes, and above all a persistence of the symptoms in spite of a well directed treatment, must direct the physician to a right conclusion. For instance, I was called to see a lady, ten years ago, who had a pain in her stomach. The doctor in attendance thought it was rheumatism, for in fact the lady had had rheumatic fever several years before that. It had resisted, for several weeks, anodynes, and colchicum, and fomentations, and even blisters to the stomach. On examination, a tender point was found in the dorsal spine, pressure there aggravating the pain in the stomach. A small blister to the spine relieved the stomach like magic, and there never was any return of the trouble, nor was there the least pain or uneasiness at the time in any other portion of the body.

In rheumatism of the spine, lumbago, and sciatica, there is pain on motion and at rest, and the tenderness on pressure is in the *erector spinæ* and other muscles of the back, rather than in the intimate structure of the column.

In active congestion of the medulla spinalis, there is uneasiness complained of at the point of afflux, with more or less passivity or incipient paralysis of the parts below this point; and a sense of constriction around the body on a level with this point, as if a cord were drawn *taut*, is almost a pathognomonic symptom of active congestion. From spinal meningitis, myelitis, locomotor ataxia, tetanus, hydrophobia, and the like, I take it for granted that the differentiation is sufficiently easy for the most careless observer. Tumours pressing upon the ganglia and branches of the great sympathetic within the chest or abdomen, and thus giving rise to feigned disease in the organs supplied by them, are more apt to confound the careful practitioner; and this is notably true as regards the air passages, heart and stomach, cancer and other tumours of the greater curvature of the stomach, of the liver, the pancreas, the transverse colon, and aneurism of the abdominal aorta at the usual point where its parietes are weakened by the hiatus for the cœliac axis. Any of these tumours may press upon the semilunar ganglion and the radiating fibres constituting the solar plexus, and through these and the splanchnic nerves the impression will be propagated to the organs of the chest and abdomen, and thus a functional turmoil may be kept up in one or many of these viscera. I believe it is by the catenation of the internal or visceral branches of the ganglia with the terminal branches of the *par vagum*, and not by direct encroachment, that dyspeptic symptoms, gastralgia, nausea and vomiting, palpitation and cardiac murmurs, and the like, are kept up. So it will be wise for the practitioner, in these obscure and trying cases, to examine very carefully for an abdominal tumour.

Before quitting this part of the subject, I will say a word about the character of these cardiac murmurs, which may aid some one who is in doubt whether he has an organic or merely functional case to deal with. Like the hygremic murmur, in my experience this murmur produced by perverted nervous influence, whether the pressure and consequent irritation of the roots be from congestion or serous infiltration within the spinal canal, or from the pressure of a tumour outside (ante ?), yet I have always

found the murmur to be the *bruit de soufflet*, the *bruit de scie*, or the filing or rasping bruit, which is generally ascribed to roughness of the orifices or valves, and which is due to the deposition and organization of the normal products of inflammation. The regurgitant murmurs are produced by an irregular contraction or spasm, or undue relation of the fleshy columns, thereby either drawing the *chordæ tendineæ* and attached valves short of the auriculo-ventricular foramen, or allowing the valve to be driven through into the auricle at each ventricular systole; and in either case producing a murmur. This is especially true of the *columnæ papillares*, which are free in their middle, being attached merely by one extremity to the ventricular parietes, and by the other to the *chordæ tendineæ;* and hence must be capable of contraction and relaxation independently of the ventricles.

The *prognosis*, under proper treatment, is singularly favourable. Indeed, I know of no circumstances under which the physician is better rewarded in gratitude and reputation than right here, in affording prompt relief by the exercise of a very little care in the proper direction of his treatment. In those cases that have been overlooked for years, it will require weeks and months often to restore to perfect health, not only the spine but those organs and structures secondarily lashed into semi-organic disease. After having been apparently relieved the spinal tenderness is liable to recur again and again, but in the end a healthy condition will be restored. I have seen cases that I had every reason to believe had existed for *ten* years, and have often met with the disease of from *two* to *five* years' duration; and I have seen the heart appreciably enlarged from long-continued overaction, valvular regurgitation and distention, and the like; also passive congestion of the lungs and other organs, return to their normal condition under treatment directed almost wholly to the spine. According to my experience in the disease, and it has not been small, there is no disposition in the spinal congestion. or whatever it may be, either to right itself or go on to permanent organic change or disorganization of the tissues; and this peculiarity of behaviour, I think, almost stamps it as a disease *sui generis*, just as tetanus is or hydrophobia is. Notwithstanding the fact that I have seen the most rational constitutional treatment resorted to for months, and anodynes and antispasmodics for the organic manifestations, yet so long as the real seat of the trouble was unattended to, the patient was liable to a recurrence of the symptoms again and again. I have no doubt but that a continuance of the spinal irritation is capable of producing organic changes in the structures implicated which are beyond repair, and that disorganization of the cord at the seat of the pressure may ensue, and as a result many cases have proved fatal; but such a termination I have never seen.

The *treatment* is sufficiently simple and rational. A course of counter irritation to the spine is of the first importance, and in many cases is all that is required. A succession of small blisters, or pustulation with croton oil, in some cases it may be necessary to apply a cup and take an ounce or two of blood, and in very persistent cases a seton might be advisable; but I have always succeeded with blisters and croton oil. Where the tenderness extends for several inches, I apply a long, narrow strip of blister, and repeat again and again, if necessary.

In those cases in which the general health is below the normal standard, and the patients are pale, nervous, weak, lethargic, indisposed to exercise, with cold extremities, and disposed to local congestions, and have a weak and irritable heart, and are threatened with syncope, or do actually faint on rising up suddenly,—in such cases a course of general and special tonics and alteratives must be used in addition to the counter irritation, without which even these would be powerless to effect a cure. Of these tonics I have found iron, nux vomica, phosphorus and digitalis, variously combined, to be the most efficacious. In those cases in which there is manifested a weak and irregular heart, with a bellows murmur and some hypertrophy, together with coldness of the extremities and a disposition to syncope, I have seen a pill containing two grains of the pyrophosphate of iron and half a grain each of ext. nux vomica and pulv. digitalis, three times a day, seem to work wonders almost. Of course, suitable exercise must be insisted on in those persons who have been in the habit of sitting and *lounging* a great deal, and a change of occupation is necessary in some cases, and suitable clothing and diet in all cases.—*American Practitioner.*

CLIMATIC TREATMENT OF PULMONARY PHTHISIS.

BY ALFRED L. LOOMIS, M.D.

Read before the American Medical Association, at Buffalo, June, 1878.

* * * * * * *

During the past ten years my advice has been given to a large number of persons suffering from pulmonary disease. Under my direction pulmonary invalids have taken up their residence for a longer or shorter time in nearly every well-known health resort on this continent. I have sent but few phthisical invalids to other countries, for within our own boundaries may be found every diversity of climate. From these experiences, without entering into the details of individual cases, I have reached the following conclusions:

First—That we can expect permanent improvement in cases of developed phthisis only after a prolonged residence in the locality which experience has proved to be best suited to each individual case. Permanent favourable results cannot be obtained from an annual change of climate.

Second—That cases of *tubercular* phthisis in any stage of the disease grow steadily and rapidly worse in all localities. Such cases do best in the quiet, well-ventilated apartments of their own homes, where they can be surrounded by all those influences and circumstances which tend to make a feeble invalid comfortable.

Third—That cases of *fibrous* phthisis in every stage, whether the fibrous process commenced in the pleura or in the bronchial tubes, even after retraction of the chest walls, especially in the infra-clavicular region, is well marked, and the bronchial dilatations which accompany it give the physical sign of extensive cavities, improve, and often reach a condition of comparative health, when they take up their residence in regions having very high altitude, such as are found in Colorado and in the Rocky Mountain range. The benefit which asthmatic and emphysematous invalids derive in these regions is most marked. I know of no locality where these classes of pulmonary invalids make such rapid and permanent improvement. Experience has led me to be very cautious in recommending these regions of high altitude to invalids with catarrhal phthisis. In the advanced stage of this form of phthisis, I have never seen good results from a residence in such regions, and it is quite doubtful whether any one in its first stage has received benefit. It is stated by some of the advocates of the Colorado climate, that by it advanced cases of phthisis are greatly benefitted, and often reach a condition of apparent recovery. In these favourable cases I would rather the exact nature of the diseased processes than the physical signs had been given, notwithstanding by some so much importance has been attached to the latter. My own experience leads me to believe that only cases of fibrous phthisis are benefitted in regions of very high elevation.

Unquestionably, the majority of cases of pulmonary phthisis are of the catarrhal variety, and it is in giving advice as to the climate and locality best suited to this class that the greatest experience and judgment is to be exercised by the medical adviser. One thing seems certain that after the stage of softening and excavation is reached by this class, no climate will long delay the fatal issue. It is during the stage of pulmonary consolidation, or during the period of enfeeblement which precedes consolidation, that we may expect permanent improvement and perhaps final recovery.

I have seen only a very limited number of cases of catarrhal phthisis permanently improved by long sea voyages or a residence in a warm climate. A large number in the early stage of this disease, going from a northern to a southern winter, are temporarily improved: after the first apparently beneficial effects are passed, the degenerative inflammatory processes go on more rapidly than before. The invalids whom I have found to be most markedly benefitted by a sojourn during the winter months in a southern climate are those convalescing from some acute pulmonary affection, in whom the delayed convalescence raises the fear of possible phthisical development, and those in whom acquired or hereditary phthisical tendencies exist, yet there may be no positive physical signs of disease of the lungs. The list of such cases is a long one, and the results obtained are most satisfactory. My favourite resorts for such cases are Aiken in South Carolina, Pilatka, Enterprise and Gainsville in Florida,

and Thomasville in Georgia. My best results in the stage of consolidation of the catarrhal form of phthisis have been reached in those who have made a prolonged stay, (varying from one year to three years) in mountain regions with an elevation of from 1,500 to 2,000 feet. Of such regions the most positive and permanent beneficial results have been obtained in Ashville, N.C., and in the Adirondack region in this state.

I am led to believe that persons suffering from catarrhal phthisis do not do well at a higher elevation than 2,500 feet, and also that some regions with a much lower elevation afford all the necessary climatic conditions for this class of cases.

The mode of life which those suffering from phthisis should adopt is important. The general direction given us, "Live in the open air," but few of those who give or receive this advice appreciate its full meaning. My own personal experience, as well as my experience in regard to its effects upon others, leads me to believe that a camp-life, or a tent-life during the warm season in such localities as have already been indicated, is of the greatest service in arresting and curing phthisis in those who are not enfeebled. If this kind of life is not practicable, or the invalid's condition renders it hazardous, then spending the day in the open air in pleasurable excursions should be encouraged even in the feeble.—*Hospital Gazette.*

An Improved Anæsthetic.—Dr. George Wachsmuth recommends *(Deutsche med. Wochenschrift)* for an easier, pleasanter and less dangerous anæsthesia, the addition to chloroform of one-fifths its bulk of ol. terebinth. The latter acts as a refrigerant to the lungs and thus prevents their paralysis, increases their capacity and volatilizes the chloroform, facilitating its diffusion. For the patient it is quite pleasant and for the physician, speedy and safe.—*St. Petersburger med. Wochenschrift.*

Karl Rokitanzky, Professor of Pathological Anatomy at the University of Vienna, died at Vienna on the 23rd of July. Rokitanzky was born in Kœniggrætz, Bohemia, February 19, 1804.

Surgery.

ON THE TREATMENT OF SPINAL ABSCESS.

BY SAMUEL W. GROSS, A.M., M.D., SURGEON TO THE PHILADELPHIA HOSPITAL.

Many of you will remember this little girl, whom I had before you several times during the spring months of 1877. As she has been under my personal observation ever since, and as she is a striking example of recovery from spinal abscess, I again present her with the double view of giving you an opportunity of completing your study of the case, and of affording me the occasion of explaining my views as to the proper mode of treating this most unpromising affection.

Catharine B., aged 12 years, strumous parentage, was thrown across a stove in the spring of 1874, and was soon after confined to her bed in consequence of severe pains in the lower dorsal region, which were followed by angular curvature of the spine and paralysis of the lower limbs. Upon her transfer from the Children's Asylum to my wards, March 16th, 1877, I found her greatly emaciated, paraplegic, without, however, loss of sensation, deprived of appetite and sleep, and suffering from hectic fever; and I was told by Dr. Perkins, under whose care she had been, that the temperature during the vesperal exacerbations reached 103½°. There was a decided hump in the lower dorsal region, the greatest prominence being formed by the eleventh dorsal vertebra, and a large abscess was pointing in the right loin. In searching for the cause of constitutional disturbance, I found that a psoas abscess was discharging freely on the out side of the right thigh, about three inches below Poupart's ligament.

As I desired to bring the child before you on the following day, I did not open the abscess; but, in the event of its spontaneous evacuation, which seemed to be imminent, I directed my assistant, Dr. Van Valzah, to have her closely watched, so that he could at once apply the dressings in a manner which I shall presently describe. On my next visit, at the expiration of twenty-four hours, I found that the abscess had discharged itself, and had been dressed as I

had requested, and that she had been put upon twelve drops of deodorized laudanum, which was repeated every twelve hours. Under this treatment and generous diet, at the end of two weeks, she had greatly improved; the hectic fever had ceased, and the temperature was reduced to 99°. At the close of another fortnight, Sayre's plaster jacket was applied, and, in another four weeks, she was making herself useful in the ward.

The opening of the lumbar abscess closed on the 27th of July, and the plaster dressing was discontinued on the 1st of November. For the past seven months the discharge from the psoas abscess has diminished to from one to two drachms of pus daily, and it is doubtless kept up by an imprisoned necrosed piece of the body of a vertebra, which it is, of course, impossible to reach. In other respects the child is perfectly well.

The management of abscesses dependent upon caries of the vertebræ has always engaged serious attention, since they are the most common causes of a fatal issue in angular curvature of the spine, from the constitutional disturbance which ensues upon their spontaneous or artificial evacuation. While it is true that small collections of pus, particularly those seated in the dorsal region, are occasionally absorbed, of which occurrence I have met with one example in this hospital, it is equally true, that lumbar, iliac, and psoas abscesses generally attain large dimensions, and their tendency is not to a cure by resolution, but to death from hectic irritation, septicæmia, or pyæmia.

With the view of preventing consecutive fever it is customary to open spinal abscesses by a valvular incision or by pneumatic aspiration, the object being to avoid the admission of air into their interior, under the idea that the reaction is due to the passage into the blood of the putrid material engendered by the contact of the air with the pus. Acting upon this theory, I was formerly in the habit of resorting to subcutaneous puncture; but the uniformly bad termination of my cases led me to abandon the practice. No bettter results attended the aseptic method in my hands. In a case of psoas abscess connected with disease of the last dorsal and first lumbar vertebræ, and of which I show you the specimen, the pus was evacuated under lint saturated with carbolized oil, and the free opening afterwards kept covered with carbolized paste spread upon tinfoil. The patient, a woman twenty-five years of age, rapidly succumbed. In another case of abscess presenting itself in the loin, and treated in the same manner, the result was identical. Under the old plan, in which air was excluded from the sac, hectic always set in; while, under the more modern method, notwithstanding the employment of a powerful germicide in the two instances in which I resorted to it, a fatal systemic disturbance ensued. From the fact, then, of irritating fever occurring, whether air was admitted or not, I was led to question the accuracy of the atmospheric explanation of the dangers of opening spinal abscesses; and I now altogether discard the theory that the entrance of air is the cause of the untoward symptoms.

That putrid changes are not set up in pus by the contact of the surrounding air is strikingly shown by what is known as the open-air method of treating recent wounds, such as those made in amputation, or in the excision of morbid growths, of which you have recently had a good illustration in the case of lymphoma removed from the axilla. In empyema with pneumothorax, in which the inspired air is intimately mixed with the pus, there are no signs of septicæmia from the absorption of the mixture. So also in instances of pyothorax, after the matter has been let out by free opening, experience shows that putrid changes do not occur in the fluid that remains behind. Reasoning, then, from analogy, it is difficult for me to comprehend why the innocuous atmospheric air should be held to be the cause of ill effects of evacuating spinal abscesses.

If the hypothesis of putrid changes in the cavity of the abscess from the admission of air be abandoned, in what manner are the evil symptoms to be explained? In the elucidation of this question, I feel convinced that we must look to acute inflammation of the sac of the abscess, induced by the loss of support of its walls, through which rapid nutritive changes ensue from diminution of the resistance of its vessels to the increased pressure of the blood,

and through which the cyst itself is subjected to injury.

The sac of a spinal abscess, formed as it is of a firm membrane, known as the pyogenic membrane, and the surrounding stretched and altered tissues through which the pus has travelled in its offorts to reach the surface, differs from that of a superficial chronic abscess, in that its sides do not contract and approximate after its evacuation. As a result of the tension of its vessels, due partly to the compression exerted upon them by the accumulated pus, and partly to the infiltrated condition of its walls, its blood supply is comparatively slight, and the formation of pus is a slow process. From the very moment, however, that the circulation and nutrition of the cyst are disturbed by the withdrawal of its contents, from that moment the tension of the vessels is lost, and, as natural consequences, more blood is sent to the heretofore slightly vascular membrane, its surface becomes studded with minute granulations through the dilatations of the old capillaries and the development of new ones, and pyogenesis goes on at a greatly increased rate. So rapid, indeed, is the production of pus that a day or two suffices to cause the abscess to attain dimensions which, in its closed state, was the work of months. After several evacuations, it is, moreover, a matter of repeated observation that the pus is not only thin and somewhat putrid, but that it is more or less streaked with blood, the latter phenomenon being readily explicable by the rupture of the softened capillaries from the insult to which they have subjected by the alternate relaxation and distension of the pyogenic membrane during the discharge or accumulation of the contents of the abscess.

In illustration of the changes which ensue in the limiting sac, I show you a water-coloured drawing of a psoas abscess that had undergone spontaneous evacuation after several subcutaneous punctures. Instead of a smooth, almost bloodless membranous cyst, you will observe that the sac is highly vascular, beset with patches of ecchymosis, and covered with a greyish-white layer of aplastic lymph, with points of greenish discolouration, and areas of fatty transformation.

The theory of inflammation of the sac of the abscess, from the injury to which it has been subjected, as the cause of the consecutive fever after its spontaneous or artificial opening, is not original with me, my attention having first been directed to it by the article on Diseases of the spine, contributed, 1862, by Mr. Alexander Shaw, of London, to the *System of Surgery*, edited by Mr. Holmes. Mr. Shaw does not appear, however, to have utilized the explanation as a guide to practice, since he merely advises that such abscesses be treated on general principles. Other authors hold substantially similar views, among the most recent of whom is Professor Hodgen, of St. Louis, who, in a paper on Antiseptic Surgery, contained in the *Transactions of the International Medical Congress*, Philadelphia, 1876, says that the bad symptoms consequent upon opening chronic abscesses are not due so much to the admission of air as to the rekindling of destructive inflammation in their walls. Having based the management of these cases on the truth of the hypothesis, I am led to call your attention to it, with the hope that it may prove as efficient in your hands as it has in my own,

The essential elements of the treatment are, first, to afford rest to the sac by support of its walls; and, secondly, to tranquillize the system at large, and control morbid action by the free exhibition of anodynes.

To fulfil the first indication, after the evacuation of the pus by a free iucision, whereby an outlet for any detached fragments of bone is also afforded, adhesive strips, about one inch in width, are applied over the empty abscess, in such a manner that each succeeding one shall envelop one-half the preceeding one, care being taken not to embrace the entire body or limb, as the case may be. An opening having been made in the dressing, so as to admit of free drainage, a large, soft, flat, moist sponge is confined over the parts by a couple of adhesive strips and a roller, and kept wet to promote its expansion, whereby gentle, equable, and systematic compression is steadily maintained. So long as the discharge continues to be abundant, the outer coverings will require a daily change, but the adhesive plaster may be allowed to remain as long as it retains its hold, although for the first few days substitution will be

necessary every forty-eight hours. As soon as the granulating process has sufficiently advanced, as marked by the diminution in the quantity, and the alteration in the quality of the pus, the dressings may be discontinued.

Employed in this way, compression exerts its good effects by supporting the walls of the abscess, through which they are not only kept at rest, but the tonicity of their capillaries is maintained, whereby the pyogenic process is diminished, and the danger of hemorrhage averted. By approximating its sides, moreover, less of a cavity remains to be closed by granulations, and the healing process is much expedited.

With the view to allay nervous and vascular excitement, and thereby more effectually ensure rest to the parts and system at large, opium should be given in full doses for the first five or six days after the evacuation of the abscess. The value of anodynes in moderating the constitutional irritation has long been insisted upon by Professor Gross, and, if I mistake not, we are indebted to him for having pointed out the importance of this class of remedies in his *System of Surgery*, which first appeared in 1859.

With regard to other measures, it need scarcely be said that they should be of a tonic and sustaining nature, and that the inflamed and disintegrated vertebræ should be relieved of the pressure and friction exerted upon them by the superimposed parts, by means calculated to extend and to prevent motion of the spinal column.

In the case of the child, there can be no reasonable doubt that if the treatment, which I have outlined, had not been instituted, a fatal issue would have been rapid from the sudden and profuse drain to which her already exhausted system would have been subjected. So hopeful, indeed, was I of a favourable result, that I intentionally omitted the internal exhibition of quinia, and relied solely upon support of the sac and sustained doses of opium to prevent untoward symptoms. Under their agency the improvement in her general condition was most marked; and the application of the plaster jacket was only delayed because her sensitiveness and want of strength would not admit of her being swung in the suspending apparatus. Under opposite circumstances, this invaluable means of fixing and relieving the disintegrated vertebræ from pressure should be resorted to at once, and an opening be made in the dressing to receive the compression sponge, which should be confined by a roller.

For an ingenious mode of applying the dressing, I cannot do better than refer you to p. 331 of Professor Sayre's work on *Orthopedic Surgery*, where you will find the details of a case of lumbar abscess which confirm the correctness of my views as to the benefit derived from supporting the sac, although the distinguished author advances no theory as to the cause of the dangers of evacuating spinal abscesses.

In further illustration of this subject, I will read you the notes of the first case in which I instituted the practice that was afterwards followed in that of the little girl. As it occurred before the invention of the plaster jacket, I had to content myself with enforcing strict recumbency, and fixing the spine, so far as it was possible to do so, with the brace that the man was wearing when I first saw him. As he also made a good recovery, I am led to conclude that, however valuable complete control over the movements of the spine may be in furthering and perfecting a cure, it is not essential with the view of averting hectic or other ill consequences.

John L., a weaver, aged 30, consulted me on the 24th of September, 1868, on account of scolio-cyphosis, the upper dorsal vertebræ being curved to the left, and the sixth and seventh dorsal spines projecting at least an inch and a half beyond the surrounding level. The left lumbar region was the seat of a hemispherical fluctuating swelling, which was devoid of heat, tenderness, and discolouration, and extended from the spine to the posterior border of the external oblique muscle measuring four by four inches and three-quarters in its vertical and transverse diameters He was weak and emaciated, having lost nearly twenty pounds of flesh, and had been forced to abandon his occupation.

The previous history, for which and for assistance in carrying out the treatment I am indebted to my friend, Dr. James Graham, was

that, eleven months before I saw him, he began to complain of pain at the seat of the curvature, which soon became constant. Three months subsequently, his attendant discovered what he supposed to be scoliosis, for the relief of which a support was worn. He continued to work on half-time for six months, suffering from occasional aggravation of the local pain, which was much increased by walking. Three months before he came to me, the left loin was the seat of throbbing paroxysmal pain, and at that time he noticed a small swelling, which had gradually increased until it attained the dimensions to which I have alluded.

Under a tonic and supporting regimen and strict recumbency, his appetite soon improved, his suffering abated, and he became comfortable.

On the 4th of april, 1869, or after the lapse of six months, it was noted that "he is again losing flesh and strength; the pain in the dorsal region is severe; the abscess has increased in size; and the skin is thinned and discoloured to the extent of a ten-cent piece towards its posterior limit." It was then discovered that he had been in the habit of sitting up in bed to to take his meals, and rising to pass his excretions.

On the 18th of April, a free incision gave vent to a large amount of strumous pus; the dressings were applied in the manner already described; and he was directed to take a grain of opium every six hours, along with quinia, milk punch, and a nourishing diet. One week later the report showed that "the sponge had been changed every day, and the entire dressing every other day. The discharge is abundant; he has had no constitutional disturbance, and is perfectly comfortable."

On the 3rd of May, "he is gaining strength; the appetite is improving, and the discharge is decreasing." From this time until April 8th, 1870, or nearly one year after the evacuation of the abscess, when he left the city, he maintained the recumbent posture faithfully. For several months he had experienced no pain on motion or firm pressure; the affected vertebræ appeared to be firmly consolidated; he had grown quite fat; the appetite was good; all the functions were regular, and the discharge did not amount to more than one drachm in the twenty-four hours.—*Med. News and Library.*

A Simple Method of Reducing Prolapsus of the Rectum.—Dr. J. C. Davis, in the *Hospital Gazette*, says if the patient be a child, place it on its back, flex the thighs and legs at a right angle to the body; let the nurse or an assistant hold them in this position, wipe the mucus or other discharge from the prolapsed part; then take an old handkerchief, or a piece of soft linen or cotton rag, place it loosely over index finger, and introduce it slowly into the rectum: the mucous membrane will adhere to the rag, and the part last descending will be the first to repass the sphincter. Carry the finger the full length up the rectum; then with two fingers of the left hand—one on each side—sustain the gut while withdrawing the finger. To remove the rag, keep up the counter-pressure with the fingers of the left hand, and pull gently, first on one side, then on the other of the handkerchief or rag, and in this way remove it from the rectum. If the patient be other than a child, place him in the "Sim's position" and the same procedure will accomplish the object in view.—*Hospital Gazette.*

New Method of Compressing the Common Iliac.—In the *British Medical Journal* of May 18th, Mr. Richard Davy, Surgeon to the Westminster Hospital, describes a method he has adopted successfully for the compression of the common iliac artery in amputation of the leg. A straight lever of wood is introduced *per rectum*, and one end applied to the artery between the lumbar bodies and psoas magnus muscle, the other projecting as a handle. By depressing the handle, the perineal tissues serving as a fulcrum, the common and internal iliacs can be effectually controlled. Mr. Davy believes the method more easy and reliable than compression of the aorta, and that the circulatory system is less seriously disturbed by it. No injury need be done to the rectum if proper care is used.

Dr. M. Mannheimer, of Chicago, has accomplished results in the treatment of whooping cough which are of interest. Dr. Mannheimer has employed intralaryngeal insufflations of a fine powder, composed of equal parts of the sulphate of quinine and white chalk. In nine cases the results were that the average duration of the disease, under this treatment, was six days.

Midwifery.

THE PATHOLOGY OF MEMBRANOUS DYSMENORRHŒA.

BY DR. CORY.

The author related the case of a patient who menstruated first at the age of fifteen, but never passed any membrane till after her marriage, at the age of thirty. Within two years of her marriage she had three miscarriages, all between the second and third months. In April, 1876, she came as an out-patient at St. Thomas's Hospital with subinvolution and retroversion. From this time she almost invariably at the menstrual periods passed membranes which had all the character of the uterine mucous membrane, forming perfect casts of the uterus. The membrane was usually passed on the second day of the period, up to which time she had acute pain. The period continued for two or three days after its expulsion, and was always profuse. On two occasions the membrane did not appear, and on both occasions she had previously been away from her husband. The intervals between the commencement of the periods varied between twenty-five and thirty-one days. The longer the interval, the larger was the membrane passed. She was admitted while menstruating into the hospital, and the period ceased on May 4th, 1877. On the 23rd it recurred, but without any membrane. Iodine was applied to the cavity of the uterus. She re-appeared in February, 1878, and stated that she had been living apart from her husband for nine months, and during that time had menstruated regularly without any membrane. He thought the case favoured the view that menstruation was due to the abortion of an unimpregnated ovum, together with its nidus, the mucous membrane of the uterus. The order of events in a normal menstrual cycle would then be—(1) The arrival of an unimpregnated ovum in the uterus at, or soon after, a menstrual period. (2) The development of this ovum and its nidus, the mucous membrane, up to a certain point. (3) The arrival to maturity of the next Graafian follicle, accompanied towards its completion by ovarian irritation, which being reflected to the uterus causes uterine contraction. (4) The abortion of the old ovum and its nidus, accompanied by a discharge of blood. (5) The rupture of the Graafian follicle and the passage of the new ovum along the Fallopian tube. A microscopic section of the membrane passed in the case reported was shown.—*Obstetrical Journal.*

Therapeutic Notes.

EXTRACT OF MALT.

BY E. R. PALMER, M.D.,

Professor of Physiology, etc., University of Louisville.

When Extract of Malt was first introduced into this country, I had my attention called to it as a therapeutic agent, but never gave it or saw any one who had taken it. I lost sight of it as a remedy. About five years ago I began to prescribe lager-beer in certain cases, and have had many most admirable results that I could point to as following upon its use. I have found it of marked benefit in duodenal dyspepsia accompanied by constipation and emaciation, both of which it corrects; and also have frequently found it to be a panacea in cases of mental or physical exhaustion, accompanied by fretfulness or irascibility and wakefulness. Only during the year past have I given the Malt Extract; yet the more I give it the better I am pleased with its therapeutic action in certain of the most common chronic maladies. In consultation with a surgical colleague I ordered "Trommer's Extract of Malt with Hypophosphites" in the case of J. S., adult, of strumous habit, afflicted with an old psoas abscess. The patient had taken cod-liver oil previously. The improvement was very marked; the amount of discharge decreased rapidly; with a proportionate gain in flesh and strength, which soon enabled him to return to his bench as a cabinet-maker. When I last saw him, six or eight months ago, he was still taking the remedy in question.

I was called, a few weeks ago, to see Mrs. O., suffering with bronchial catarrh, with a history of previous hæmoptysis. She had taken, under the direction of another physician, eight bottles of the Extract of Malt with Hypophosphites. I asked her what she thought of it, and her reply was, that while it had not cured the cough, it had entirely relieved her of a distressing dyspepsia and nervousness.

Mrs. B., suffering with post-nasal catarrh, dyspepsia, and constipation, is taking the simple Extract of Malt with decided alleviation of all her symptoms, especially her constipation, which was a source of much trouble to her.

Sarah B., adult (colored), patient of Dr. Cottell, a sufferer from chronic malarial poisoning, and much broken in health, began the use of Malt and Oil, after a long and apparently fruitless course of bark alkaloids. Improvement was rapid and marked, so that she was soon able to resume her duties and go through with the arduous labors of spring house-cleaning.

J. M. H., adult, male, with previous good personal history, but bad family record, was seized suddenly, about six week ago, with hæmoptysis. In my absence he got, of Dr. Cottell, fluid extract ergot and gallic acid. The hæmorrhage was checked for a day or two, and then returned; was checked and returned a third time, when he went to bed. He was delirious, and had a temperature of 103.5°, and a pulse of 130, night-sweats, and cough, with *subcrepitant rales* throughout the right mammary region. I feared that I had a case of acute tuberculosis, and made a grave prognosis. I ordered carbonate of ammonia and morphine, and after a couple of days changed to syrup of wild cherry and chloral. After three or four days the delirium, which was never marked, passed away, and I ordered Extract of Malt and Oil, to be taken with wine. He protested that he could not take oil. I assured him he could take the preparation ordered. He improved steadily, is out of doors, coughs but little, has regained his flesh and appetite, lost his night-sweats, and expects to go to work at his trade (piano making) in a few days.

Sarah H. (colored), married but sterile, has a strikingly similar history, excepting the delirium. In her case emaciation was very marked, owing probably to the large amount of blood lost. She has taken, so far, four bottles of malt and oil, and is clearly improving in health and strength.

One case more: Mattie M. (colored), a school-teacher, of large frame, weight, before sickness, about one hundred and seventy pounds, developed hereditary phthisis about eight months ago, with all the usual train of symptoms, including laryngitis. She had an emulsion of cod-liver oil (an excellent preparation), with moderate improvement, also Churchill's Syrup of Hypophosphites; but the cough and hoarseness, with occasional hæmorrhage, continued. About three months ago I ordered carbolic acid by atomizer for throat, and Trommer's Extract of Malt with cod-liver oil internally, withdrawing all other treatment. In the last two months I have not seen her, except on the street and once in my office. She hardly coughs at all, has regained nearly all the flesh she lost, has no hoarseness, and is regularly at her post in one of our public schools for colored children.

This last I deem the most remarkable case of all reported. The second stage of phthisis was well advanced, and all the graver symptoms which mark it were present. The usual treatment, including cod-liver oil and the hopophosphites, had been faithfully tried, with but slight improvement; while, from the commencement of the use of malt and oil, improvement has been steady and marked.

This has with good reason been called the age of physiological therapeutics. The rapid and practical strides which physiology has of late years been making, are taken advantage of by the therapeutist as foundation-stones upon which to base a system of rational medicine. The introduction of pepsin into pharmacy was an important practical application of physiological science, as also the more recent use of pancreatine in the administration of cod-liver oil, etc.

The introduction of malt into American practice, which has only become general since home houses have undertaken its manufacture, bids fair to play a more important part in physiological medicine than that of either pepsin or pancreatine.

Extract of Malt is, in the main, two things; namely, digested starch and sugar, and the digester of starch and sugar. Its other ingredients or properties may fairly be said to hold a minor rank in importance to these two qualities.

No class of food is of so great interest to the physiologist as that comprised in the "second class of proximate principles;" namely, starch, sugar, and oils. Of albuminous matter, the necessity and the use are readily apparent; but of these other foods, and especially so of the

two former, to attempt a comprehension of the part which they play in the economy, is to reach beyond the mere matter of tissue-building to the subtiler questions that enshroud animal heat, and the other various and complex phases of vital force. Neither starch nor sugar can be considered as belonging to the tissue-making food, so vastly disproportionate are the amounts of them consumed to the mere traces of them which are to be found within the organism. They enter the blood only to disappear from it; and are in constant demand, being largely eaten at each meal. The following tables, taken from Dalton, give some idea of the amount of saccharine and amylaceous food one consumes. And here let me remind, by way of digression, that starch, *as starch*, never gets beyond the alimentary canal; that by digestion it is completely transformed in glucose, or digested sugar, and as such enters the portal venous system. In view of this fact, Flint, jr., does not mention starch as a proximate principle of the human organism, but treats of it as sugar:

COMPOSITION OF WHEATEN BREAD.

Starchy matter (starch, dextrine, glucose)	56.7
Albuminous matter (gluten, etc.)	7.0
Fatty matter	1.3
Mineral matter (calcareous, magnesian, and alkaline salts)	1.0
Water	34.0
	100.0

COMPOSITION OF THE POTATO.

Starch	20.0
Albuminous matter	2.5
Sugar and gum	1 1
Fatty matter	0.1
Cellulose	1.0
Mineral and vegetable salts	1 3
Water	74.0
	100.0

AN AVERAGE DAILY RATION.

Albuminous matter (grammes)		130
Starch and sugar	"	300
Fat	"	100
Mineral salts	"	20
Water	"	2.000

By these tables it will be seen that albuminous matter constitutes rather less than one fifth of the entire food for a healthy adult in active occupation. No words are necessary after these facts, to impress upon the physiologist the paramount importance of starch and sugar as articles of food, and the great necessity for their proper digestion and assimilation. In the normal processes of digestion, the saliva transforms to a certain extent the starch into glucose; while this act is completed, not (as is stated by most writers on malt extracts) by the pancreatic juice, though this helps a little, but by secretion of the duodenal glands (of Brunner and Lieberkuhn); a viscid, alkaline juice, not copious, but endowed with the power of very rapidly and completely transforming both starch and the varieties of sugar into glucose $C_6H_{12}O_6$. The change of starch is a simple one; thus, starch $C_6H_{10}O_5$, and water H_2O = glucose $C_6H_{12}O_6$. It is in the region where intestinal juice is produced (the duodenum) that digestion is most actively performed. Here the gastric juice finishes its work, aided by the pancreatic juice, which also digests the fat; while many of the ills that are attributed to the stomach, and still more, that are laid at the door of an absolutely healthy liver, arise from disorders of secretion and absorption, in this, which has been aptly called the lesser stomach.

The physician, who, in the management of dyspepsia, addresses all of his treatment to the stomach proper, will quite often meet with cases he can not master. How many such cases there are; cases of duodenal dyspepsia, wherein the doctor having failed in the use of pepsin, and mineral acids, and strychnia, and quinia, deems the liver the offending member, and bends all of his energies to its subjugation. The prevalence of amylaceous indigestion, and, (excluding drunkards) the comparative rarity of liver diseases, are not sufficiently recognized. The cure of obstinate dyspepsia by lager-beer (by no means uncommon), a remedy not at all calculated to benefit the liver, has done not a little toward teaching us to more carefully classify our cases of dyspepsia, and to treat them accordingly.

How far Extract of Malt is of use, and in what class of cases, are questions that time alone can answer for us. In Germany it is firmly fixed in the front rank among remedies. Some idea of what it may be used for, may be gained by the following analysis of one of the brands of American malt:

TROMMER'S EXTRACT OF MALT.

Malt sugar	46.1
Dextrine, hopbitter, extractive matter	23.6
Albuminous matter (diastase)	2.469

Ash	Phosphates	1.712
	Alkalies	.377
Water		25.7
		99.958

The first of these ingredients is starch and sugar, ready for absorption. The third (diastase) is the analogue of ptyaline (of saliva) and of a similar ingredient of intestinal juice. It is present, as will be seen, in nearly two and a half parts per hundred. In saliva, ptyaline exists in less than seven and a half parts per thousand (7,352 Dalton.) I speak of diastase as the analogue of ptyaline. If it differs at all in its action from the latter, it is in a greater readiness and completeness with which it transforms starch into glucose. In malt extract, its properties are preserved, and the glucose retains its integrity; while in beer, the process of fermentation has destroyed nearly all of these qualities, and produced alcohol, with, though to but a slight degree, its objectionable features.

Malt extract, with its combinations, has been recommended and deserves a trial in the following diseases: anæmia, chlorosis, marasmus, dyspepsia, neuralgia, insomnia, pulmonary and bronchial affections, dysentery, constipation, scrofula, covalescence from exhausting diseases, etc. It may be had combined with any of the standard tonics or alteratives, for which it makes an admirable vehicle.—*Louisville Medical News.*

Action of Parenchymatous Injections of Glacial Acetic Acid on Carcinoma.—Dr. Gies injected diluted glacial, acetic acid (1 : 3 aq. destil.) into a recurrent carcinoma, as large as a hen's egg, seated in the right side of the inferior maxilla; the injection excited suppuration, and tumor was diminished to the size of a hazel-nut. A primary carcinoma, as large as a hen's egg, situated beneath the ear of the same patient, was treated in the same way, and after 21 days had almost entirely disappeared; 25 syringefuls were injected before this tumor suppurated. A carcinoma as large as a hen's egg, situated in the left breast of a woman, suppurated after 10 injections, and in the course of a month had shrunken to a nodule about the size of a hazel-nut.—*Centralblatt f. Chir.*, No. 19.

A CASE OF CHLOROFORM-POISONING.

BY J. A. LARRABEE, M.D.

A young German woman, aged twenty, in good health and sound constitution, swallowed an unknown quantity of chloroform between the hours of 2 and 3 P.M. Having a short time previous stated that she desired to take a nap no inquiry was made for her until 4 : 30, at which time she was observed to be sleeping, and was left to finish her nap. At 5 an attempt was made to arouse her, which, on account of the peculiar odor smelt in the room and the deep stupor, awakened suspicion, and a neighoring physician was at once summoned.

Attempts at emesis brought up strong fumes of chloroform, and a strong current of electricity was applied through the pneumogastric and diaphragm. I saw the patient at 7 P. M. The above treatment had been steadily carried out and well directed by the doctor—notwithstanding which I found her quite pulseless and fast sinking. A feeble impulse with a single sound could be heard when the ear was placed over the heart. No apex beat or second sound, and the right ventricle, largely distended, was making abortive attempts at contraction. Nitrite of amyl was placed in the nostrils and forced respiration commenced. Not the slightest observable improvement followed. A sudden change to pallor gave rise to the announcement that she was gone. I now proposed to inject one-tenth grain of digitaline into the cellular tissue over the scorbiculus cordis, and did so; in twenty minutes from this time the heart's sounds were audible, and in thirty minutes my friend counted the radial pulse. This improvement was noticed for an hour, at which time, the circulation again failing, I then injected one-tenth grain more, and left to get supper, Dr. K. remaining. On my return there was not only a good, fair pulse, but the respiration was more thoracic and regular. In order to stimulate the respiratory centres, which evidently were not up with the circulation, I gave one-tenth grain atropia hypodermically, and in another hour the urine was withdrawn, a little more than a pint in quantity. At 11 p.m. respiration and pulse both good; dilated pupil; fixed dryness of mouth.

I met Dr. K. at the case at eight next morning. Nothing further had been done during the night except to induce her to swallow some nourishment, which, on account of the denuded mucous membrane of the throat, was quite impossible. She was quite rational, and evidently chagrined at the result of her foolishness. She admitted to have swallowed the whole quantity purchased, one ounce, of pure chloroform. I have since learned that her recovery was rapid, and not delayed by gastric or œsophageal inflammation, as I feared it would be. A day or two after I saw her she had, I suppose, a hysterical spell of choking.—*Louisville Medical News.*

BELLADONNA AS A STIMULANT TO THE CIRCULATORY SYSTEM.— . . . . For my part, I cannot resist the conviction that the best means at present at our command to rouse a patient from severe cholera-collapse, *epidemic or sporadic*, will be the subcutaneous injection of medium doses of atropia with the purpose of stimulating the circulatory system, so that the kidneys and lungs shall be enabled to excrete the poisonous products of tissue-metamorphosis, conjoined with the frequent introduction of small quantities of water into the stomach, in order to relieve the *inspissated* condition of the blood. If vomiting and purging should be persistent, the addition of small doses of morphia to the atropia would appear to me a useful combination.—*R. H. Weber, in Philadelphia Medical Times*

BURNS AND SCALDS. THE ALKALINE TREATMENT. ITS HISTORY.—Following an account of the circumstances which led to the discovery by him of the power of alkalies to promptly relieve the pains and inflammation of burns, he says, "My treatment is to apply to the burned surface bicarbonate of soda in fine powder if it is a wet surface; but if it is a dry burn, use a paste of bicarbonate of soda and water or a strong solution of bicarbonate of soda in water, and apply to the burned surface. This relieves sun burns, as well as burns from hot coals, melted sulphur, hot iron, steam, etc."

N.B.—Always dispose the burned surface so that the blood can gravitate towards the heart, if possible, as otherwise a continuous pain may be felt, due to the dilatation of the blood-vessels from the weight of the contained blood.

"If bicarbonate of soda is not at hand, bicarbonate of potash is the next best; biborate of soda does as well, but is not often found handy."

Original Communications.

REPORT OF THREE CASES OF PUERPERAL ECLAMPSIA AND ALBUMINURIA.

BY L. M'FARLANE, M.B., TORONTO.

(Read before the Toronto Medical Society, June 27th.)

Case 1.—Mrs. C——, aged twenty-seven; primipara; in the eighth month of pregnancy; enjoyed good health up to the time I was called to see her. On the day previous to her illness she walked several miles and returned late in the evening. Before retiring, she partook of some food, after which she went to her bedroom, and was taken with vomiting, violent pains in the head, and blindness. A few minutes after going to bed a severe convulsion came on, "which, I was informed by her sister, a very intelligent lady," lasted for upwards of two minutes. On my arrival, about two a.m., I found that she had recovered from the first fit, and on asking her a few questions, ascertained that she was not aware of having had a fit, and expressed surprise that I had been sent for. While talking to her a second fit came on, which lasted fully two minutes. The head and eyes being turned to the right, the face and neck extremely livid, the pupils dilated. The convulsions affected both sides of the body alike; pulse 90, full and soft; breathing, labored; skin hot and dry. After the fit I commenced to administer chloroform, and sent for Dr. Winstanley, who arrived shortly after. The chloroform was kept up, but had not the effect of warding off the fits. They returned at regular intervals of about one hour and a half. On making an examination per vaginam, the external os was slightly dilated, but rigid: labour pains had not come on: I therefore injected about gr. 1 of ergotin under the skin, which appeared to bring on the pains.

Dr. Hodder, who had formerly been the family physician, was sent for and brought Barnes' dilators which were used to dilate the os. When it was sufficiently dilated to admit the forceps, they were used, and the child, a fine healthy female, delivered. The convulsions continued at regular intervals till the birth of the child, notwithstanding the constant admin-

istration of chloroform. It was now decided to give an enema of 20 grs. of chloral, with ʒss. of brandy and six oz. of milk, which was accordingly done. Drs. Hodder and Winstanley now left, and I remained with my patient.

After they left, the fits became more frequent and violent. Seeing that the patient was threatening to collapse, "the chloroform and chloral appearing to exert no beneficial effect," I decided to try the effect of morphine, and consequently inserted half a grain under the skin of the arm, and in about ten minutes afterwards a fit came on which proved to be the last. the patient passing into a quiet sleep, which lasted for several hours.

On awaking from the sleep, she took some milk and chloral : she was perfectly blind and partially unconscious. Convalescence slowly took place, the blindness continuing for four days. The kidneys during this time secreting a very small quantity of urine, which was loaded with albumen. There was a good deal of œdema of the face and legs, which gradually disappeared as the kidneys began to act properly.

Case 2.—Mrs. J——, aged thirty, pregnant with her third child, enjoyed moderate health up to the third of January, On that day, as I was passing, she called me in to engage me to attend her in her confinement, which she expected would occur in the following month. While talking to her, she complained of pain in the stomach, which she attributed to flatulence. Seeing that there was a good deal of œdema of the face and hands, and fearing that I might have a similar case to that of the first, I ordered her a saline purgative.

On the following morning, her husband came for me, telling me that she had suffered all night from vomiting and violent pains in the head : I told him to return home and that I would be there in a short time. In about twenty minutes, or half an hour, he returned and told me his wife had a fit. On my arrival, I found Dr. King there : he was administering chloroform : he informed me that she had three fits since he arrived, and a few minutes after I entered the room, she took a most violent fit : the face was completely turned on to the pillow, the face and neck became extremely livid, the eyes were turned up, and the conjunctivæ were suffused. There was grinding of the teeth, and froth and blood issuing from the mouth : the fit lasted for upwards of three minutes. After the attack, the pulse was 110, and the breathing stertorous, the pupils slightly contracted. I at once decided to use the morphine, and injected half a grain under the skin, which arrested the convulsion.

On making an examination per vaginam, I found the external os dilated to the size of a twenty-five cent piece and dilatable, the head presenting. The labour pains were recurring regularly. As soon as I could reach the membranes, I ruptured them, and shortly afterwards the os was sufficiently dilated to admit the forceps, which I applied, and delivered the child, who was alive and healthy. When the head was pressing on the perineum, a convulsion came on, but lasted only for a short time. However, I repeated the injection of morphine, which prevented a recurrence of the fits. The subsequent treatment was by chloral and bromide of potass. The blindness continued for three days. The urine was secreted in small quantities, and became almost solid by heating.

Case 3.—Mrs. G——, aged twenty-four, primipara. She had been for about a week before the attack, suffering from headache and sleeplessness, but did not consider it sufficiently serious to have advice. There was a good deal of œdema of the face and hands, also of the feet.

About two a.m. on January 23rd, a young lady who was stopping with her (her husband being absent in St. Johns, N.B.), was awakened by hearing her breathing very heavily, and, on lighting the gas, discovered that she was in a fit. I was immediately sent for, and arrived about three a.m. I was informed that she had five fits before I got there. I found the pulse 98 per minute, frequent and small. The breathing stertorous, skin hot and moist, froth and blood at the angles of the mouth. I had not been there more than five minutes when a most violent convulsion came on. The head and eyes were drawn to the right side. The muscles of the arms, legs, and body were perfectly hard. The pupils dilated, the face extremely livid, froth and blood exuded from the

mouth. The fit lasted about three minutes :—on recovering from it, the breathing was stertorous, the pulse 115 per minute, frequent and small. I now introduced half a grain of morph. sulph. under the skin, which completely arrested the fits. I sent for Dr. Winstanley, who brought Barnes' dilators, which we used to dilate the os and cervix : when sufficiently dilated, the forceps were applied and the child, a fine, healthy boy, delivered.

The œdema in this case was greater than in either of the others : convalescence was also slower : the blindness continuing for ten days and consciousness only partial during that time. The secretion from the kidneys was very scanty, and became almost solid by heat.

Before concluding this paper I would like to call the attention of the society briefly to the essential pathology of this most terrible disease as reported by Dr. Angus McDonald, Clinical Lecturer on the Diseases of Woman, Royal Infirmary, Edinburgh.

Two cases of death occurring in his practice from puerperal eclampsia, a most careful post-mortem examination was made in both cases by Mr. D. J. Hamilton, Pathologist to the Royal Infirmary, when the following pathological conditions were found :—

1st. Intense congestion in the meninges and engorgement of the venous sinuses on the inner aspect of the cranium and spinal canal.

2nd. Intense anæmia of the deeper portions of the brain, and especially of the collective moter centres, including the cord.

3rd. Complete absence of any evidence of this anæmia having been preceded by cerebral œdema, as the Traube-Rosenstein theory of puerperal convulsions predicates.

4th. In the portion of the medulla oblongata between and down to the level of the middle portions of the olivary bodies, and also in the olivary bodies themselves, there were discovered vascular and extra-vascular changes, indicative of commencing inflammatory change.

5th. There was observed a limited extravasation of blood in the anterior portion of the right corpus striatum where it dips down to form the nucleus lenticularis.

6th. It is at the same time to be noticed that all those changes occurred, although the cerebral bloodvessels, and indeed the entire vascular system, was found to be peculiarly healthy.

7th, *Kidneys.*—He contends that the essential element in the pathology would seem to be reduced to a condition of over-action of the vaso-motor centres, from the stimlating action upon them of a blood rendered impure through retention of the collective excrementitious matters, which the kidneys ought to have removed. The naked-eye appearances of ordinary parenchymatous nephritis were found ; but, on microscopic examination, something entirely different was detected. This consisted of degeneration of the epithelial cells of a certain proportion of the tubules in the circumferential aspects of the cortex. The degeneration appeared to be of a colloid nature. The products of these degenerated cells ran down and blocked up, more or less completely, the other convoluted and straight tubules, so as to render them functionally useless, although their tissues were not diseased.

8th. Throughout the body the general appearance, with the exceptions stated, coincides with those ordinarily found where death results from puerperal eclampsia. Thus the liver and lungs, and other internal viscera, were seen to be markedly congested, &c. By this over-stimulation there is produced a high degree of anæmia of the deeper cerebral regions and central portions of the cord, and coincidently, a collection of the blood in the venous sinuses within the cranium and the spinal cavity and in the meninges. This effect of blood-supply is at the same time aided by the peculiar conditions of the venous and blood-vascular systems conditioned by pregnancy. It appears that he accepts the old toxæmic theory as after all the most reasonable, that the poison acts by irritation of the great vaso-motor centres for the body in the medulla oblongata, thus producing spasm or general arterial contractions acting centrifugally. However, I must confess that I am more disposed to accept the theory of Traube as applied to puerperal convulsions by Rosenstein, viz., that uræmic convulsions, occurring in the pregnant condition, result from cerebral anæmia, which, again, is a consequence of cerebral œdema. The explanation of how this condition is brought about is as follows :—The

blood of pregnant women is normally increased in quantity, but of defective quality, being, in fact, too watery. It is, moreover, propelled under increased tension, inasmuch as the left ventricle of the heat hypertrophies during pregnancy, especially during its latter months. If now to those conditions kidney lesion is superadded, with its deteriorating effects upon the blood and its influence in the development of cardiac hypertrophy, we have produced a state of matters that presents us with a large amount of blood of defective quality circulating in vessels subjected to a very high tension. The result of this, according to the Traube-Rosenstein theory, is that we have first produced cerebral hyperæmia. This leads to effusion of serum from the watery blood into the cerebral tissues. So soon as the œdema has thus been produced, it reacts, from the incompressibility of the fluid composing it, so as to prevent the dilatation of the cerebral vessels traversing the œdematous areas, and anæmia is the result. If this occurs in the cerebrum, according to our authors, we have coma; but if it arises in the motor centres, we have convulsions.

My reason for being more disposed to accept the Traube-theory is the fact, that in the three cases above reported there was more or less œdema of the face, hands, and feet, also of the areolar tissue of other parts of the body. Now if it is possible to have general œdema of the surface, it is quite natural to suppose that we can have effusion into the cerebral substance. Seeing that, according to both theories, the defective quality of the blood is admitted, also the hyperthrophy of the left ventricle of the heart, and, in consequence of the hypertrophy, increased tension of the vessels of the brain.

However, Mr. President, my object in presenting the above cases was not so much to enter into the essential pathology of the disease as to bring before the society the treatment adopted. It will be seen that in the first case the chloroform got a fair trial, inasmuch as the patient was kept under its influence for upwards of six hours, without apparently producing any beneficial effect except probably to increase the interval between the attacks. The chloral was not kept up, consequently, I cannot speak so confidently of its effects, but, judging from the results in the two cases reported by Dr. A. McDonald, I am inclined to think that it is not to be depended on. Morphine, I believe, is the drug, above all others, from which the best results may be expected, its effect in my cases was so marked and prompt as to convince me of its efficacy in the treatment of this most terrible and fatal disease. It will be noticed in the first case that after the continued use for several hours of the chloroform the convulsions became more frequent and severe and the patient was rapidly sinking, but after the first injection of the drug the fits were completely arrested. In the other two, a like satisfactory result was obtained, although up to the time the morphine was used the attacks were both frequent and violent.

The question naturally arises as to the *modus operandi* of morphine in puerperal convulsions. If we accept the theory of Dr. McDonald, viz., that they are produced by over-action of the vaso-motor centres in the medulla oblongata, then I think that it is only reasonable to suppose that the drug produces its theraapeutic effects by lowering the vaso-motor action and thus arresting the spasm which prevents the blood from entering the capillaries. On the other hand, if the Traube-theory is correct, the action of the medicine must be to quiet the excessive irritability consequent upon the extreme anæmia of the brain and the action of the impoverished blood which has been circulating through the brain prior to the production of the anæmia. Whatever view may ultimately be taken on these points, it is sufficiently obvious that the existence of albuminuria in a pregnant woman must constantly be a source of much anxiety to the practitioner, and should serve as a warning to him that there is danger ahead, and that it is necessary to put his patient under treatment, and watch her symptoms very closely. If this course is pursued, I believe many of the cases which occur and cause so much anxiety to the patient's friends, and especially to her accoucheur, may be prevented.

Dr. Osler, Professor of Physiology in McGill College, Montreal, has been admitted a Member of the Royal College of Physicians, London, England.

CLINICAL LECTURE ON EXAMINATION OF URINARY CALCULI.

Delivered at St. Thomas's Hospital, by

WILLIAM M. ORD, M.D., LOND., F.R.C.P.,

Physician to the Hospital and Lecturer on Medicine in its Medical School.

GENTLEMEN,—The recent occurrence in our practice of several cases in which calculi were either passed from the body or were found after death, has induced me to devote a lecture to the consideration of the analysis of calculi from the practitioner's point of view. That is to say, I wish to show you how much may be done without the assistance of a laboratory by any surgeon or physician who will provide himself with some simple apparatus, and give a little thought to the matter. So much may be learned from the examination of calculi, that it seems to me a serious default when they are put aside as though beyond the range of the general practitioner, and relegated to the chemist or the specialist. Every one of you ought, and I hope will be able when the responsibility of practice comes upon you, to decide as to the composition of any calculus.

In the first place, I have laid out on the table the simple apparatus which is required. The whole can be bought for a few shillings, (if we except the microscope) and most of it will be useful in the daily examination of urines, a necessity now-a-days, and neither a mystery nor a luxury.

A spirit lamp, and a Bunsen's burner, fitted by india-rubber tubing to your gas-burner; a small sheet of platinum foil and a sheet of fine platinum wire; blow pipe and iron tongs; a dozen test tubes; two small funnels and filter-papers; two or three beakers; two or three test-glasses (four ounce); a porcelain capsule or small excavating dish; pestle and mortar; test papers; reagents; strong nitric, sulphuric, hydrochloric, and acetic acids; liquor potassæ, phosphate of soda, ammonia, chloride of sodum, oxalate of ammonia, distilled water; together with a microscope having a good one-fourth inch objective, such as may now be obtained of many makers in London at a cost of from six to eight guineas.

You will first take the calculus into your hands and feel its consistence and apparent specific gravity. Phosphatic calculi are comparatively light, oxalate and carbonate of lime, heavy. You will feel if it is hard or soft; and note if it be round or angular, smooth, or rugged. If round or oval, without faces or angles, the calculus was probably solitary; if facetted, multiple; if more angular, it may be the result of fracture within the bladder. Uric acid and phosphates form smooth calculi; oxalate of lime, dark rugged or tuberculated calculi, (mulberry).

The next step is to make a section through the calculus;—easily done by a fine saw, or by a lapidary. I usually avail myself of the aid of the lapidary to get one of the section surfaces polished as far as may be. The section should go through the very centre of the calculus,—you will then be able to form some opinion as to the homogeneity of the calculus. Very frequently the centre or nucleus is of one composition, and the bulk of the surrounding deposit of another, and not seldom you will find more than two distinct stratifications. In the subsequent processes you must be careful to submit to separate examination portions of all parts which have a different appearance from the rest, and generally you will find it desirable to satisfy yourselves as to the composition of the nucleus and the mass respectively, very often of the outer crust also.

You will now break off a piece of the mass, or extract a fragment from the nucleus and reduce it to powder in a clean mortar.

A. Place some of the powder upon clean platinum foil, and hold it with the tongs first over the flame of a spirit lamp, then over the Bunsen, and if necessary apply the blow pipe.

The substance is either in great part consumed, or remains unconsumed.

By this simple process the matters occurring in calculi are at once divided into two groups. The following list exhibits them arranged according to their comparative frequency of occurrence, the most common being written in large type, the least common in very small.

1. Consumed in great part.	Not Consumed.
URIC ACID ($C_5H_4N_4O_3 \cdot 2HO$)	PHOSPHATE OF LIME.
URATE OF AMMONIA.	TRIPLE PHOSPHATE.
URATE OF SODA OR LIME.	OXALATE OF LIME.
Xanthin $C_5H_4N_4O_2$	Carbonate of Lime.
FIBRIN.	
BLOOD	
Cystin $C_3H_6NSO_2$	
Urostealith. }	
Myelin. }	
Indigo-blue C_8H_5NO	

Organic Cement either albuminous, mucous, or horny.

The volatile substances usually have some small quantity of earthy matter, and the fixed substance some quantity of animal matrix in combination. So that most commonly there is associated, with the substances in the left hand column, some fixed, and with those in the right, some volatile constituent.

B. The calculus is chiefly volatile. Note the behaviour of the substance during heating. It may give off some distinctive odour; it may simply vanish; it may blacken; it may fuse; it may give off smoke; it may burn with thick smoke.

(*a*) Uric acid and urate of ammonia simply blacken and disappear without fusing or giving off any marked smoky vapour or smell.

(*b*) Xanthin fuses, blackens, and is then consumed.

(*c*) Fibrin burns with a smoke like that of burnt feathers, leaving a considerable ash of phosphates.

(*d*) The substances included under the name of "urostealith" (and "myelin") burn like camphor with a smell like that of burning fat.

(*e*) Indigo sublimes, the vapour burning with an odour of its own, partly like that of soot, partly like that of burnt feathers.

(*f*) Cystin fuses, blackens, and volatilizes with a faint sickly odour, which is very persistent.

C. In the case of both volatile and non-volatile calculi, uric acid should next be specially sought. For this the murexid test is used. A small quantity of the powdered calculus is placed in a porcelain capsule and a drop of strong nitric acid is added. Heat being applied, a brisk effervescence ensues, and when this is over, heating is continued so as to drive off the nitric acid without producing any charring of the solid residue. When no more nitric acid vapour is emitted, a drop of liquor ammoniæ is added, and if uric acid be present an intense crimson-purple colour is produced. Very often this tint is faintly seen before the addition of ammonia, either because ammonia was already present, or because the heating process has been a little too rapid, and has produced some decomposition.

If the presence of uric acid is declared, further tests are required. It may be pure, or combined with ammonia, potash, soda, or lime.

(*a*) For ammonia. Place some of the powder in a small test-tube, add liquor potassæ, and heat gently. If ammonia be present it can sometimes be detected by its smell; or in smaller quantities, by placing a rod, dipped in strong hydrochloric acid, at the mouth of the tube; when, if ammonia be present, the white vapours of chloride of ammonia will be produced. This process must be very cautiously carried out. If the heating be intense or prolonged, uric acid is decomposed by the potash, and ammonia is evolved.

(*b*) For soda, potash, and lime, the ash left after calcination should be submitted to the blow-pipe, and the colour of the flame observed,—yellow, in the case of soda; purplish blue, with potash; reddish purple, with lime. If they are present together, the blow-pipe may be supplemented by the spectroscope. For this, and like purpose, I usually carry a little spectroscope in my pocket, but would scarcely advise you to include it among your apparatus at first.

But here comes in the use of the microscope. You may make some excellent determinations here, by noting crystals thrown down from distilled water in which some of the powder of the calculus has been boiled for a few minutes. The liquid having been filtered, is left in a cool place for a few hours, and if there be uric acid or urates present they will be found as a deposit, and can be submitted to microscopic examination. Uric acid then occurs in flat quadrangular, somewhat elongated plates, look-

ing like glass paper weights. If a little ammonia is combined, exceeding large and thin lancet ended plates will be found, with an equivalent of ammonia or soda fine needles often gathered into radiating tufts, with lime much coarser, thicker and flattened prisms, gathered into tufts and crosses. The great value of the microscope as an aid to chemical research cannot be too strongly insisted on. You will find it help you at every step if you will avail yourself of it.

The murexid process incidentally gives information about *cystin* which after evaporation leaves a dark brown residue, soluble in liquor ammoniæ; and *xanthin*, a very rare substance allied to uric acid which, first swelling up, leaves a yellow residue after the action and evaporation of the nitric acid, giving us pink or purple with ammonia; but dissolving in liq. potassæ with a yellowish-red colour, turned to violet-red by heat. The yellow mass is insoluble in solution of carbonate of potash.

D. Guided by the foregoing tests, we can apply further reactions to the volatile substance.

1. For fibrin we apply liq. potassæ, in which that substance dissolves after swelling up a little. The solution is precipitated by acetic acid or by ferrocyanide of potassium with acetic acid.

If the fibrin be combined with blood, the microscope will often detect traces of corpuscles, or failing this, the presence of blood-pigment may be revealed by the hœmin test (Teichmann's). To some of the powdered calculus some well-dried chloride of sodium is added in about equal proportion. To a grain of this spread upon a microscopic slide, add strong acetic acid, cover with thin glass, and apply heat till ebullition is produced. On cooling, crystals of an elongated rhombic prismatic shape with rounded angles, and of a dull brownish colour will be found if blood is present. If the acetic acid should have been driven off by the heat, a little glycerine or strong solution of acetate of potash must be run in between the covering glass and the slide. A permanent preparation may thus be made. For cystin the special tests are, first, solution of ammonia, which dissolves the substance, and in evaporation leaves transparent, colourless, six-sided tablets. Neutralization of the ammonia by acetic acid causes a similar precipitate, but usually in less perfect form. Mineral acids dissolve the substance, a reaction which at once distinguishes it from uric acid.

Under the head of *urostealith* several substances are most probably included; among them, first, a fatty matter, saponified by alkali, and precipitated by subsequent additions of acid. Second, a substance of high molecule, containing much phosphorus. Both of these burn, as has been stated, with a large smoky flame. The second formed the greater part of a soft solid, sent to me a little while ago for examination. It had been passed by a gentleman who had stricture. The substance burned like camphor and was supposed to be caoutchouc derived from a catheter retained in the bladder; but a little examination dissipated this idea. The matter being volatile and dark coloured, the hœmin test was used. It was then seen that one portion threw out long hollow tubes, something like nerve-tubes. These were exactly like tubes thrown out, as Dr. Montgomery showed a few years ago, by the substance which he called Myeline on contact with water. "Myelin" is an alcoholic extract of yoke of egg, and is a complex phosphorized body, like, if not identical, with lecethin and the substance called kephalin by Dr. Thudichum. Both myelin and kephalin when placed dry in a slide and moistened with water, are seen, under the microscope, to send out an abundance of transparent hollow processes having great refractility. The substance therefore agreed with them in this as well as in the way of its burning and in solubility in hot alcohol. A more thorough investigation of urostealiths will probably bring out the presence of similar bodies.

Last among the volatile substances I have put indigo. This has been as yet found only once, and by myself.

The calculus yielding indigo is before you. It was removed from the pelvis of the kidney. The tests for indigo are:—

1. The presence of black, blue, and coppery pigment in the powdered calculus.

2. The sublimation of the indigo-blue by a gentle heat, and the collection of the characteristic crystals on a clean glass slide. Here, under one microscope are sublimed crystals from the calculus; here, under another sublimed crystals from commercial indigo; you will see at once their identity, and see a ready mode of recognizing indigo. The behaviour of the vapour is very marked. The perfectly dry powder is placed in a perfectly dry test tube, and very slowly heated over a spirit-lamp. At a heat short of redness, a vapour of a deep violet colour is emitted, rather more purple than iodine vapour. It lies heavily in the tube, and on removal of the heat at once condenses, partly on the tube, partly on the powder. I make this experiment before you, and now show you with a two inch lens the tufts of blue flat prism on the glass.

3. Indigo blue can be dissolved, unchanged, in strong sulphuric acid, yielding a blue solution. This solution is permanent if undiluted. If diluted, it gradually deposits the indigo there. The spectroscope shows a band in the yellow, characteristic of indigo, as you may see here on comparing a solution of the calculus with a solution of indigo. Here are often blue and purple solutions, which give very different bands in blue and red, as well as in yellow.

D. The calculus being chiefly or entirely composed of non-volatile matter, further tests are used.

1. The ash left after incineration may be fusible or infusible.

(*a*) Fusible. Soluble in acetic acid; and precipitable from solution by excess of ammonia. *Triple, or ammoniaco-magnesian phosphate.* If the neutralization be very cautiously performed, crystals of the triple phosphate ("house-tops") will be thrown down, and can be recognized by the microscope.

(*b*) Infusible. Add acetic acid very slightly diluted. If soluble with effervescence, the substance was, before incineration, either *oxalate or carbonate of lime.* The presence of lime made evident by a precipitate with solution of oxalate of ammonia. If not soluble in acetic acid, but soluble in hydrochloric acid, add to the solution excess of ammonia. A deposit indicates *phosphate of lime.*

2. The foregoing examination will leave the question of oxalate or carbonate of lime unsettled. Powder some of the calculus, and add acetic acid. If solution with effervescence, *carbonate of lime.* A possible source of error here is the use of glacial acetic acid, which, without dilution will fail to dissolve carbonate of lime. And in rare cases the presence of organic matter appears to prevent the action of the acetic acid. Ammonia added in excess throws down triple phosphate if present If no solution, add hydrochloric acid. To the solution thus obtained add ammonia in excess with great caution, and examine the precipitate with the microscope. *Oxalate of lime* will be found in octohedra, phosphate in prisms.

By one and two in conjunction, the presence of carbonate, oxalate, and phosphate of lime, and of triple phosphate may be determined.

3. The action of hydrochloric acid in the preceding stage leaves often an insoluble residue. This may be:—1. "Matrix" or cementing organic material. 2. Uric acid or other insoluble organic matter, such as pigment. 3. Foreign bodies, such as microscopic fungi.

The uric acid is often found in spherical forms, and is recognized by its solubility in solution of potash. This part of the examination is often of importance in determining the origin and history of the calculus, particularly by showing the form of the matrix, which, under the microscope, often retains the impression of the shapes imbedded in it.

4. It is often convenient, in dealing with complex calculi, to examine the powdered calculus, even though of insoluble kind, mixed with water under the microscope.

(*a*) We can see whether the earthy matter is in the form of crystals, spheres, or molecules.

(*b*) We can detect pigment.

(*c*) We can apply acids and alkalies to the substance and watch their action.

5. Similarly in the case of soluble uric acid or urate calculi, we can add weak solution of potash to the powder under the microscope, and examine for organic forms, particularly of fungi. These are often to be found with mixed urates, and throw light on the state of the urine and urinary organs at the time when the concretion was formed.

The microscopic examination, directed in the last paragraph but one, has a much more important object than might be at first supposed. The researches of our valued teacher, Mr. Rainey, have proved that inorganic matter, when deposited in colloids, assume spherical instead of angular crystalline forms, and moreover, tend to cohere into masses instead of forming sand. In a long series of investigations founded upon the principles enunciated by Mr. Rainey, I have been able to show that the presence of colloids in urine determines changes in the form of the crystalline matters deposited. That, for instance, the form in which uric acid is deposited from urine is not its form, but is a departure from that form in the direction of sphericity. Pure uric acid, which is colourless, has the form of perfectly rectangular oblong plates. Uric acid, as deposited from urine, is always coloured, and has the form of a rhombohedra with rounded obtuse angles. The colour is due to the pigment of the urine, a colloid of high molecule, which has a remarkable affinity for uric acid, and dyes it, so to speak. If the colour be separated the uric acid reverts to the rectangular form. If much mucus or albumen be present in urine, the change toward sphericity is greater, and we may have cask-shaped bodies, dumb-bells, or even globules of uric acid, when the quantity of colloid present is large. Extending this principle to calculi, we find that in almost all cases the earthy or properly crystalline materials are rounded, or spherical, and are also strongly cemented together. Such results have been obtained by me, synthetically, while Dr. Vandyke Carter has, in a perfectly independent piece of work, shown the same, analytically. I here show you for comparison plates of Dr. Carter, illustrating the forms of oxalate of lime found in calculi, and plates of oxalate of lime as variously altered by colloids, published by myself in 1871 in the St. Thomas's Hospital reports. Dr. Carter states that his drawings were made before he had seen mine, and you will agree that the coincidence is remarkable. The practical issue here is the recognition of the fact that, even if the urine contain habitually much crystalline matter, the danger of calculous formation is not great unless there be catarrh or albuminuria. As regards oxalate of lime, it is, however, certain that very little colloid cement is necessary. Hence the frequency with which this substance forms small calculi in the pelvis of the kidney. Hence we will look to two things, the prevention of the deposit, and the prevention, as far as may be, of the persistence of catarrhal affections of the urinary passages. The first every one naturally regards, the second, less known as a cause, will, I trust, receive more attention in the future. In conclusion, I trust you will have seen how much can be done with a few appliances, and how much subject for thought and possibility of useful investigation is opened up thereby.

Myositis Ossificans.—At the Vienna Medical Society, Docent Dr. Nicoladoni presented a girl, seven years of age, as an example of a very rare affection of the muscles, viz., ossification of the muscles of the trunk and limbs. The disease had been going on for about a year, commencing in the muscles of the neck, whence it extended to the spine, the anterior part of the thorax, and the limbs. On each side of the spine a rigid line (sacrospinales) extends. The scapula is fixed to the thorax; and in the cervical regions are found fibrous cords containing bony plates. The right knee-joint is contracted, and the pectorales are almost entirely ossified. There are only three similar cases on record.

Dr. Schoeler presents the history of a case in which, for the first time, the cornea of a dog was transplanted into a human eye successfully. After the insertion of the cornea into its new position, the wound was entirely covered with flap of conjunctiva. Six weeks later a peritomy was performed, so at to cause the disappearance of this artificial pannus. The result was so far successful that the patient was enabled to recognize the movement of the hand at six inches. Several cases, showing the advantages of conjunctival flaps in the treatment of wound of the sclerotic, are narrated.—*Medical Record.*

CLINICAL REMARKS ON CATARACT AT THE TORONTO GENERAL HOSPITAL.

BY R. A. REEVE, B.A., M.D.,
Oculist to the Institution.

(*Continued.*)

SOFT CATARACT—(*Keratonyxis*).—Here is a child, æt. two and a-half years, the pupil of whose right eye has appeared milky at least one and a-half years, the mother says; and you see that there is also a slight squint. The right pupil is but little larger than the left, and nearly as active, and the opacity seems in contact with its posterior edge. The anterior chambers are of equal depth, and the tension of both eyes is alike, the globes dimpling under very slight pressure. Having dilated the right pupil, we find that the normal reddish reflex from the fundus cannot be seen with the ophthalmoscope, and the lens appears uniformly opaque; and there is no shadow cast by the iris into the lens under oblique illumination, shewing that it is involved up to the anterior capsule.

Since the crystalline lens is quite soft during adolescence, and comparatively so, indeed, up to the age of thirty or thirty-five, this case should be termed *soft* cataract. The cause cannot be determined in this instance, but the affection is probably congenital, although not hereditary. Congenital cataract, which is generally double, is not unfrequently hereditary; and I have seen a mother and three of her children apply together for the treatment of cataract. In some of the cases developed *in utero*, the lenticular opacity occurs with changes in the deeper tissues, and the sight is very defective or but little better after the removal of the cataract. But it is not advisable to wait until a child is intelligent before deciding to operate, for more or less amblyopia or defective sight may result from prolonged functional disuse of the retina, especially where owing to the opacity of the lens and the want of the proper visual impulse, a secondary squint develops. On the other hand, be certain before operating that the lens is diffusely cloudy and all its tissue involved, the eye otherwise appearing normal; for there is one form of congenital cataract in which the lens itself should be left intact.

And, again, glioma of the retina, a malignant disease, sometimes simulates cataract. Glioma may be distinguished, however, by the bright yellow-white reflex from the depths of the eye, the pupil being more or less enlarged and sluggish or fixed, the anterior chamber possibly shallow, and the tension, as a rule, increased.

[*Double Glioma of Retina.*—Boy, æt. three, well-nourished, but uneasy and fretful for the past year without apparent cause; left pupil "got larger than ordinary, one year ago," after inflammatory symptoms, and six months ago, "quite large, and eye looked hollow. You would fancy you could see the back or bottom of the eye, which looked as the right does now, yellowish-gray, with red veins on it." Six weeks ago the right pupil first shewed the peculiar appearance of the left; and the child has since stumbled, the sight being much worse. Right eye—externally normal, but with glistening "creamy" reflex from a large part of the fundus, the retinal vessels being well seen on the pale, raised background by means of the ophthalmoscopic mirror alone. Left eye—episcleral vessels enlarged; pupil widely dilated and fixed; anterior chamber, shallow; lens, transparent, or only slightly hazy, but seemingly opaque, the anterior part of the vitreous having a gray look with a brighter, yellowish appearance shewing through; eye glaucomatous, dimpling only on *firm* pressure; motion of eyes perfect. No family history of cancer.]

You need hardly be reminded that the term "cataract" as popularly given to opacity of the cornea from old ulceration,—leucoma, when dense; nebula, when merely hazy, is a misnomer; though, of course, cataract may accompany or complicate this condition.

We shall treat this case as soft cataract is usually treated, viz, by *keratonyxis* or needling; (formerly, scleroticonyxis, because sclerotic was pierced); also styled *discission;* and *solution*, advantage being taken of the fact that the aqueous humor will attack and dissolve the lens when it is unprotected by its capsule. Several operations are necessary; and on the first occasion it is well simply to prick the lens at its centre. In the second needling the capsule may be torn a little and some of the lens broken up; and in the succeeding ones a freer division of the capsule and lens should be made. From three to six needlings may be

required, at intervals of from two to four weeks or more, time being allowed after each operation for the disturbed lens substance to be dissolved before another needling is done. The pupil must be widely dilated before operating, and its full dilatation kept up afterwards by instillations of solution of atropiæ sulph. grs. 2 to 4, ad ℥j. two to four times a day, or p.r.n., for a few days.

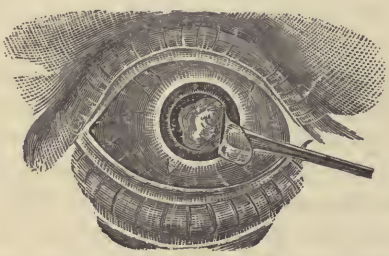
[There seems to be some misconception in regard to dilatation of the pupil: The pupil is *fully* dilated only when its area nearly equals that of the cornea, the iris being reduced to a narrow circular rim. Sometimes after keratonyxis, and always after extraction, the pupil contracts somewhat owing to the escape of the aqueous, &c., and the aim should be to restore full dilatation—approximately at least—as soon as the anterior chamber is re-established, so as to prevent, if possible, engorgement of the iris, iritis, &c.]

If the eye becomes hard, either the aqueous should be let out by what is termed *paracentesis corneæ*, the anterior chamber being tapped by passing a broad needle through the cornea near its periphery below or at the outer side; or, preferably in most instances, the cataract should be removed by *linear* extraction. If after the lens has been got rid of, the posterior capsule is found opaque (secondary cataract), it should be divided with a needle as soon as the eye is free from irritation.

October 9. First needling done; child under chloroform; pupil fully dilated; lids separated by spring stop speculum; eye lightly steadied by forceps; fine cataract stop-needle passed with a light jerking movement through the outer part of the cornea, made to enter the centre of the lens, and rapidly withdrawn from the eye, which was then closed with straps. The mother was instructed to apply the atropine on the same evening, and afterwards three times a day, or often enough to maintain full dilatation. October 12. "No reaction; no ciliary congestion; pupil well dilated; tension normal. October 30. Keratonyxis repeated. November 20. Third needling done. January 4. Fourth needling. February 12. The secondary opaque capsular membrane remaining after absorbtion of the the lens was divided with the needle. February 15. The patient discharged with a large clear central pupil. Atropine to be stopped in a few days.

Linear Extraction.—Here is another case for your inspection; patient, æt. 13. The corneæ appear alike normal, the irides healthy, and the pupils circular, active, and black. The vision of the right eye is $\frac{20}{xx}$; that of the left, $\frac{3}{70}$, but with a strong lens, + $3\frac{1}{2}$, becomes $\frac{10}{30}$. Well, as you may suspect, the left eye has lost its lens, which has been removed being cataractous. Concussion of the eyeball, caused by the impact of a snow-ball a year or more ago, was probably the cause of the cataract, which likely developed soon afterwards, though the boy only found out recently that the eye was blind. When first seen the eye appeared as it does now, except that the pupil was gray. The tension and field of vision were normal, and the position of windows and of a lamp-light could be made out. June 14th, the patient being under chloroform, and the pupil fully dilated, "needling" was done, the capsule being freely divided, and the lens broken up. Straps were then applied to the lids, and after a few hours removed and a 4gr. sol. atropiæ instilled. The next morning the pupil was found well dilated, and there was no reaction, the eye being free from congestion and pain. The pupil was kept widely dilated by the use of the 4gr. sol. atropiæ four to six times a day. The lens substance gradually became flocculent and swollen so as to project beyond the plane of the iris; but the tension, which was tested from time to time, did not become abnormal. July 3rd, *linear extraction* was done: the patient being anæsthetized, the lids separated by speculum and the eye held by fixation forceps applied at the insertion of the internal rectus, a vertical cut was made with a straight keratome through the cornea about a line from its outer margin, and two lines long, the knife being inclined so as to make an oblique wound with the inner lip well within the enlarged pupil. The cystitome was then inserted, and its point passed over the lens so as to insure thorough division of the anterior capsule. The cataract was then evacuated by making slight pressure with the forceps, still in position, while the cut was made to gape by pressing back its outer lip with the curette, which was also carefully

passed within the pupil so that the flocculent lens matter might the more easily escape along its groove. When the pupil had become clear, the eye was closed with straps; and cloths wet with ice-water were ordered to be applied. The next morning the wound had closed, the aqueous humor had been re-secreted, the iris was in about its normal plane, the pupil was dilated and regular; and the eye was free from pain, but moderately congested. The patient was allowed to get up, the eye being kept covered: sol. atropiæ sulph. gr. iv. ad ℥j. to be instilled every three hours. July 9th. The pupil is fully dilated and pretty clear; patient can see distant objects. The eye was kept under atropine, and on July 19th, vision, V., with + 4 lens = $\frac{1}{4}\frac{0}{0}$. August 28th. The posterior capsule appearing translucent was divided with the cataract needle; atropine being applied before, and also used for some days afterwards. September 4th. With + $3\frac{3}{4}$, V. = $\frac{1}{2}\frac{0}{0}$, and with + $2\frac{1}{4}$ fine print can be read.



Linear Extraction.

By *linear* extraction the process of removing soft cataract is reduced from a period of months to that of weeks, or even days,—a great gain in many instances: and it is especially indicated in subjects of thirty or thirty-five years in whom the nucleus is somewhat firmer than in adolescents. It is, moreover, a pretty safe operation, though less so than keratonyxis. The preliminary needling, which should divide the capsule and disturb the lens matter much more freely than is done in ordinary needling, is required in order that the lens tissue, which is glutinous and coherent, may by the action of the aqueous humor become flocculent, and also somewhat diffluent so as to escape readily through the cut, and not remain adherent to the iris, setting up iritis. The interval allowed in this case was longer than needed for this effect, and five to ten days generally suffice. The pupil should be kept fully dilated, for if it be allowed to contract, iritis will likely be set up, and adhesions form; the risk of the operation will be increased, and iridectomy will be required. The tension should be daily tested, for if the globe become hard, or much irritation ensue, the lens should be removed without delay. The operation is most easily done when the incision is made at the outer part of the cornea: the resulting linear cicatrix can hardly be seen in this case, and is generally not noticeable. If the iris should prolapse or be bruised during the operation, a portion should be removed. So-called secondary cataract is apt to occur, and discission with the needle should be done as after ordinary extraction.

Suction is sometimes practised in linear extraction through a hollow tubular curette, the curved eyed end of which is passed through the incision after laceration of the capsule and kept buried in the lens, gentle aspiration being made through a short piece of tubing attached to the free extremity. A piston syringe, devised by Bowman, is also employed for the same purpose. Much care should be taken when suction is used; and the ordinary and older method is yet more frequently followed.

(*To be Continued.*)

Hydrophobia.—The observations of Gowers and Coats on hydrophobia, that the white blood-corpuscles travel through the walls of the bloodvessels freely, together with those of Binz, that quinine arrests such movements of white corpuscles, have led to the employment of quinine in large doses, together with bromide of potassium, in at least one case of hydrophobia, with the effect that while one of the persons bitten by the same dog has died, a second who was taken ill a few days later was put on this plan of treatment, with the effect that seven days after active symptoms had set in he was not worse, but alive, and even somewhat better. It will not do for me here to allude further to what is being done by the commission to enquire into hydrophobia; but there are good grounds for believing that really valuable results will follow from the present careful examination into the maladies of animals, and those in man caused by animals. —*J. Milner Fothergill, in Philadelphia Medical Times.*

Translations.

From *Lyon Médical.*

The Nature of Sciatica.

M. Fernet has pursued his researches which go to prove that primitive spontaneous sciatica, ordinarily due to a local chilling, should not be considered as a simple neuralgia, that is to say, as an affection without appreciable anatomical lesion, but rather as a veritable neuritis. Exposing the results obtained in the *Archives de Médecine*, M. Fernet remarked that he relied chiefly for the establishment of his opinion upon three clinical characters: the direct examination of the nerve by palpation, the frequent existence of trophic troubles, and the course of the disease. Recently, in the case of a man in his wards affected with sciatica, he had occasion to examine *post mortem* the state of the diseased nerve, and he found a manifest increase of volume, as well as a very marked injection of the nerve; but this augmentation of volume may be readily perceived during life. Here are the directions which M. Fernet furnishes upon this subject: The patient lying upon the back with the thighs slightly flexed upon the pelvis, and the legs upon the thighs, the patient is directed to keep his lower limbs at perfect rest and to make no effort. You then explore he sciatic nerves with the fingers, which are pushed rather deeply into the popliteal space at first, then proceeding progressively upwards to the sciatic notch. The fingers being well engaged in the depth of this space, their palm or face turned towards the outer aspect of the thigh, and their extremities being occasionally carried from within outwards, the sciatic nerve is very distinctly felt under the form of a cord, and when this is firmly pressed you are apprised of the fact by the sensation which the patient experiences, a sensation only unpleasant on the sound side, but painful and accompanied with tinglings in the leg and foot of the affected side. The palpation is only really difficult in very fat subjects, or when the sciatic is very painful: in this latter case, pressure on the nerve is intolerable, and provokes reflex contractions, which prevent the exploration.

By this proceeding, carefully applied, there are frequently found very notable differences of volume between the healthy and the diseased side, the nerve of the affected side appearing larger than that of the sound, a difference of consistence, the nerve of the affected side being harder than that of the sound side; a difference of form, the nerve of the affected side forming a cylindrical cord which pressure does not modify, whilst the nerve of the sound side appears to allow itself to be flattened out and even dissociated. The lesion which is thus discovered may, moreover, be confined to certain points of the nerve.

The nature of the pain, which is continuous, persistent at first, dull, and gradually intensified, limited to the nerve trunk, or even to a part of the trunk without constant peripheral radiations is also, according to M. Fernet, a further proof of the existence of a nerve-inflammation. The defects of nutrition which, as M. Charcot has shown, are dependent upon inflammatory lesions of the nervous system, are not wanting here. There is often muscular atrophy of the leg and thigh, easily appreciated upon measurement.

At the same time as the muscular atrophy there is a thickening of the subcutaneous cellular tissue by a deposit of fat; these two states appear to be in habitual connection with one another; and in order to appreciate this adiposis, it suffices to take up at symmetrical points on the two thighs or the two legs, a fold of the skin, and to pinch it moderately between the thumb and finger; you can then very readily recognise the greater thickness which exists on the diseased side; this thickening may be sufficiently great to mark the atrophy and to give to the limb a rounded form often noted in sciatica.

Zona, which is always an index of nerve inflammation, also sometimes appears in sciatica; lastly, the evolution of the disease may also be invoked, as being contrary to the hypothesis of a simple functional trouble devoid of lesion.

In a therapeutic point of view, it results hence that, if it be admitted that primitive, spontaneous sciatica is usually a neuritis, a resolutely antiphlogistic medication will be employed against it: absolute rest, leeches, wet cups in the course of the nerve, vesicating strips at the back of the thigh, cauteries, &c., will be the chief means of treatment.—*Jour. de Méd. et de Chir. Pratiques.*

From *La France Médicale.*

DEGREE IN SANITARY SCIENCE.

Decree issued by the President of the French Republic on 20th June, 1878, relative to the conditions to be fulfilled in order to obtain the diploma of Doctor of Medicine.

Art. 1. The studies to obtain the diploma of Doctor of Medicine shall last four years; they may be followed during the first three years either in the *Facultés*, or in the *Ecoles de plain exercice*, or in preparatory school of medicine and pharmacy. The studies of the fourth year can be followed in a *Faculté* or an *Ecole de plain exercice.*

Art. 2. Candidates must produce, at the time of making their first inscription, the diploma of Bachelor of Letters and the diploma of Bachelor of Sciences, limited as to the mathematical part. They shall undergo five examinations and sustain a thesis. The 2nd, 3rd, and 5th examinations are divided into two parts. The examinations at the end of the year are suppressed.

Art. 3. The five examinations shall be in the following subjects :—

1st Examination.—Physics, Chemistry, Natural History (medical).

2nd Examination.—1st Part, Anatomy and Histology; 2nd Part, Physiology.

3rd Examination.—1st Part, External Pathology, Accouchments, Operative Medicine; 2nd Part, Internal Pathology, General Pathology.

4th Examination.—Hygiene, Forensic Medicine, Therapeutics, Materia Medica, and Pharmacology.

5th Examination.—1st Part, External and Obstetrical Clinics; 2nd Part, Intern Clinic, Practical Proof of Pathological Anatomy.

Thesis.—The candidates sustain this trial upon a subject of their own choice.

Art. 4. The first examination shall be undergone after the fourth (quarterly) inscription and before the fifth, the first part of the second examination after the tenth inscription and before the twelfth, and the second part of this examination after the twelfth and before the fourteenth inscription.

The third examination can only be passed after the expiration of the sixteenth quarter of studies.

Every candidate who shall not have successfully passed the first examination in November, at the latest, shall be thrown over to the end of the academic year and shall not be permitted to take any inscription during that year.

Art. 7. The practical laboratory work, dissection, and hospital attendance are obligatory. Each yearly period of laboratory work and dissection shall extend over six months.

The period of hospital attendance shall not be less than two years.

Art. 11. The present decree shall come into force on 1st November, 1879.

From *Gazette des Hôpitaux.*

TREATMENT OF CHRONIC ADENITIS BY CAUTERIZATION WITH NITRATE OF SILVER.

M. Casson adopts this treatment not only in suppurating chronic adenitis, but also in these tumours as soon as they are the seat of fluctuation, however vague and little manifest it may be. This treatment consists in opening the tumour at its centre with a narrow bistoury, followed by cauterization of the interior with a pencil of nitrate of silver. This cauterization should be the rule at every opening of a chronic ganglion whether with thin or thick walls, and especially in cervical adenitis.—*Pau Médical.*

From *L'Union Médical.*

THE PHYSIOLOGICAL ROLE OF THE HYPOPHOSPHITES.

At the *Academie des Sciences* M. Ch. Robin presented a note from MM. Paquelin and Joly in the following words: "The pyrophosphates and the hypophosphites have been for a long time employed in therapeutics as reconstituents. We have shown that the pyrophosphates leave the economy as they entered it, without having undergone any transformation; that the whole amount is found again in the urine in the shape of pyrophosphates; that the ingestion of these products only increases the expenditure of the economy on account of the labour of elimination which their presence necessitates; that the pyrophosphates, in fine, very far from being reconstituents, as has been for nearly thirty years supposed, are found to be merely diuretics. Our researches upon the physiological action of the hypophosphites have led us to entirely analogous conclusions.

THE CANADIAN
Journal of Medical Science,
A Monthly Journal of British and Foreign Medical Science, Criticism, and News.

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending reports of the proceedings of their Associations to the corresponding editor.*

TORONTO, SEPTEMBER, 1878.

☞ SUBSCRIBERS in arrears will greatly oblige by attending to the bills enclosed in the August number at their earliest convenience.

HOLIDAY NOTES.

(*Continued.*)

NEW YORK, 1878.

Through the courtesy of Dr. James B. Hunter, we had the pleasure of witnessing Dr. Emmett perform his favourite operation for laceration of the cervix uteri, a condition far more common than is generally supposed.

Dr. Emmett regards laceration of the cervix as a matter of very considerable importance; for it not only gives rise to an obstinate form of leucorrhœa, with prolapse and back-ache, but the cicatricial tissue is, he thinks, a prolific source of bad health, producing irritation and functional derangement in remote parts of the female system. He thinks that many of the neuralgias of the face and other parts of the body, anæmia, consumption, and even epithelioma of the uterus, may all result from the irritation produced by the pressure of the hard tissue on the nerve fibres involved in the cicatrix.

In many cases the glandulæ nabothi undergo cystic degeneration and very considerable enlargement, and these changes lead directly to increased secretion and irritability, and, in the course of time, to other changes of more serious character. He therefore strongly urges the restoration of the uterus to its normal state by paring the surfaces, and uniting them by silver wire; and while doing that, he says, we should take out all the hard cicatricial tissue from the angle of the wound, for unless we do, the edges must be forced together over a wedge of hard tissue in the angle, pressure on the nerve fibres will be increased, general discomfort will be augmented, and premature atrophy of the whole organ is apt to follow.

Whether we agree with the Doctor in ascribing so wide a range to the morbific influences of this condition or not, we must admit that it is a very powerful factor in the causation of uterine displacements, and other ills of the female generative system, by which the unfortunate victim is invalided for years, if not for life.

We also had the pleasure of seeing Dr. Thomas perform ovariotomy, the whole operation being completed in twelve and a-half minutes. This was the twenty-eighth case operated on by him since September, and out of that number there have been only four deaths.

Ovariotomy is performed at the Women's Hospital in small isolated cottages elevated about three feet from the ground; each cottage contains only two rooms, one for the patient, the other for the nurse; the walls are well plastered with hard finish and painted, and after every case the whole interior is washed with carbolic acid, and after a case of septicæmia, painted again. During the operation the temperature of the room is kept at 80° or 83°, and antiseptic spray is directed on the wound. All the instruments used are placed in an iron tray containing antiseptic solution, and all the water used for cleansing the sponges, hands, &c., is likewise antiseptic.

Dr. Thomas prefers operating before the general health is much broken down; and we firmly believe the patient *will* survive the shock of operation, and *will* be less liable to suppurative inflammation if operated on before the constitutional vigour is too much impaired. He makes a very small incision, empties the sac rapidly with a trocar and scalpel, and draws out the tumour quickly, as it becomes reduced in size, the patient being turned on the side when the trocar is thrust in. He thinks the less the peritoneum is handled or exposed the better, and where there is no

effusion or hæmorrhage, he does not touch it with either hand or sponge; but if it be necessary, he will sponge out the cavity thoroughly. Then he has his cases watched almost constantly for several days by one of his assistants, and often makes use of the cold bath when the thermometer indicates the presence or approach of danger. We have never witnessed an operation where the surgeon was so ably assisted. Each one knew his special duty, and did it without a moment's hesitation or loss. Scarcely a word was spoken, every instrument was handed up the moment it was required, without any request or search having to be made for it, and the spectator got the impression that in case of emergency each assistant was competent to take hold and finish the operation himself. Indeed his chief assistant, Dr. James B. Hunter, formerly of Toronto, is himself a very neat and successful operator, and quite competent for any operation in gynæcology. We had the pleasure of seeing him operate for laceration of the cervix uteri, and rupture of the perineum, and bear willing testimony to the ease and success with which he accomplished the task in both cases.

University of Toronto.—Matriculation Examinations.—The scholarships have been awarded as follows:—Classics—Dunn, H. L., from Welland High School. Mathematics—Barton, S. T. G., from Toronto Collegiate Institute. English, French, German, and History—McGillivary, J., from Collingwood High School. General Proficiency—MacMurchy, A., Toronto Collegiate Institute; Wright, H. J., Toronto Collegiate Institute; O'Meara, A. E., Port Hope High School; Davis, E. P., Upper Canada College; James, N., Collingwood Collegiate Institute. Ninety-seven candidates passed. Twenty-one ladies passed in different branches of subjects at the local examinations for women.

Toronto Medical Society.—The meetings of this Society have been regularly held and well attended. We print elsewhere Dr. McFarlane's paper read at the meeting of June 27th. Dr. A. H. Wright's paper on "Infants' Food," read at the meeting of July 25th, is held over until October.

COLONIAL DEGREES.

The clauses of the Duke of Richmond's Bill which admit Colonial degrees to the Medical Register have been received with no little apprehension by the profession, and we ourselves have expressed our serious doubts as to the possibility of ascertaining the actual value of these diplomas, or ensuring that, at any moment of their recognition, they are equivalent as evidences of professional competency to the licenses of our Conjoint Boards. *On paper*, at all events, we are gratified to observe that some of these Colonial licenses are above criticism for we find in the Canadian Medical Journal for the current month the examination questions of the Colleges of Physicians and Surgeons of Toronto, and are thus enabled to assure our readers that every diplomate of that body who has answered the written questions is, indeed, an emporium of professional knowledge. The papers for first and second year candidates are twenty [*No!*] in number, including three on chemistry, three on anatomy, two on surgery, two on physiology, two on midwifery, and one each on microscopic anatomy, forensic medicine, botany, practice of medicine, toxicology, materia medica, and sanitary science. The aggregate number of questions is *one hundred and fifteen*, which, being divided between two [*No!*] examinations, leaves fifty-seven written questions for each student, besides his *viva voce* examination.

If the Canadian Medical Journal would oblige us with a specimen of the answer paper of one of the monsters of erudition who have digested this dose, and eliminated a satisfactory result, we shall be able to appreciate the nature of the proposed legislation on Colonial degrees. —*Medical Press and Circular.*

[The editor of the *Medical Press and Circular* should be sure of his facts before he indulges in the ironical. We have endeavoured to enlighten him by sending him the Curriculum of the College of Physicians and Surgeons of Ontario, and we recommend him to read again the Examination questions. It ill becomes a British Medical Journal to sneer at a Colonial Conjoint Licensing Board when they have hitherto striven in vain to establish a similar system in the Mother Country.—Ed.]

ANTAGONISM OF ALCOHOL AND DIPHTHERIA.

We have received a little book upon this subject written by Prof. E. N. Chapman of Brooklyn. The author, after some twenty years' experience, part of the time very extensive, has arrived at the conclusion that alcohol is as purely and essentially a specific for the diphtheritic poison as quinine is for that of intermittent fever. He insists upon the early administration of the remedy—as soon as the character of the lesion is ascertained—in large quantities and frequently repeated. Judging from a comparison of his statistics with those under the other methods of treatment that have been adopted, Prof. Chapman has undoubtedly the best of the argument in his favour. So far as we are aware, too, he is the first who has attributed such unusual efficiency to alcohol in the treatment of this terrible disease. The fact has long been admitted that, in this and all diseases in which great prostration of the vital powers becomes manifest, alcoholic stimulants constitute one of the most important elements of successful treatment. But no one before Prof. Chapman has ventured so far as to claim for alcohol any specific agency. We are inclined strongly to concur in the view enunciated by him, as well as many others, as to the primary blood-poisoning in diphtheria. We think, too, that alcoholic stimulants, with quinine, iron, and chlorate of potash, constitute the most rational kind of treatment that has thus far been recommended; but as we have not had any experience in testing the specificity of alcohol, we are unable to offer any positive opinion. Certainly, with the enormous death-rate that has attended *all* the other modes of treatment, we would be justified, upon the very encouraging success which has followed this in Prof. Chapman's hands, in giving it a trial. One thing, we fear, is certain, that the profession has much to learn yet upon the management of the disease before it has been stripped of its terrors. We are not justified, therefore, in rejecting any recommendation which seems to offer the smallest encouragement for success.

We commend the careful perusal of this little book to our professional brethren, with the assurance that the many suggestions offered upon the subject of diphtheria will amply repay them. The style is elegant, and withal practical and unpretentious beyond the laudable effort to convey valuable practical information.

Dr. Ord, of St. Thomas' Hospital, London, Eng., has kindly promised us a second clinical lecture on "the Examination of Urine." It will appear in a future issue.

The 10th Annual Meeting of the American Association for the Cure of Inebriates will be held on Sept. 10th, 1878, in Union Hall, Boston, Mass.

Book Notices.

Annual Announcement of the Department of the University of Michigan for 1878-9; *Department of Medicine and Surgery, Ann Arbour,* 1878.

Eighth Annual Announcement of the Faculty of Medicine of Bishop's College, Montreal, Session 1878-79.

The Obstetric Forceps, When and How to Use It. By GEORGE J. ENGELMANN, M.D., St. Louis.

A Hystero-Psychosis Epilepsy dependent upon Erosions of the Cervix Uteri. By GEORGE J. ENGELMANN, M.D., St. Louis.

Eighteenth Annual Announcement of the Bellevue Hospital Medical College. Sessions of 1878-79, *with the Annual Catalogue for* 1877-78.

Ninth Annual Report of the State Board of Health of Massachusetts, January, 1878. Boston: Rand, Avery, & Co.

Remarks on Ovariotomy, With an Appendix containing the History of several Typical Cases met with in Practice. By J. W. ROSEBRUGH, M.D., Hamilton.

Prize List Thirty-third Provincial Exhibition of the Agriculture and Arts Association of Ontario, 1878, *Sept.* 23 *to* 28. *Journal of Arts Association of Ontario.*

The Soft Palate; Its Value in Diagnosis as compared with the Tongue in Derangements of the Liver, Malarious Diseases, and Exanthematous Fevers. By Wm. Abram Love, M.D., Atlanta, Georgia.

Atlas of Skin Diseases. By Louis A. Duhring, M.D. Part IV. Philadelphia: J. B. Lippincott & Co., 1878.

Part IV. of this admirable work contains illustrations from cases in practice of "Vitiligo," "Alopecia Areata," "Tinea Favosa," and "Eczema" (Rubrum.) Each plate is, as in former parts, accompanied by brief notes of the cases illustrated. We have nothing to add to our remarks made in reference to Parts I., II., and III. as to the great merit of the Atlas. All the numbers have been excellent. We can recommend it to any one wishing an Atlas of Skin Diseases.

The Hystero-Neuroses, With Especial Reference to the Menstrual Hystero-Neurosis of the Stomach. By George J. Engelmann, M.D., St. Louis, Mo.

In this little *brochure* of thirty-eight pages Dr. Engelmann directs attention to a too much neglected reflex phenomenon of uterine irritation; and points out that the rational and only successful way of removing these very distressing symptoms is the removal of the uterine condition producing them. Numerous cases are cited in illustration of the facts recorded. He classifies these hystero-neuroses in nine categories. The hystero-neuroses of the brain, of the eye, of the pharynx, of the larynx, of the bronchi, of the breasts, of the intestines, of the joints, and of the stomach. The last-named he divides into three classes: (*a*) Constant, or pathological hystero-neuroses of the stomach; (*b*) Menstrual hystero-neuroses of the stomach, and (*c*) Gastric hystero-neurosis of pregnancy.

On the Pathology of the So-called Pigtyphoid. By Wm. Osler, M.D., Professor of Physiology and Pathology in McGill University, and the Veterinary College, Montreal. (Baillière, Tindall, & Cox, King William Street, Strand.)

In this pamphlet, Dr. Osler gives an account of five experiments, made by himself, of inoculation of this disease, in healthy pigs, together with the post-mortem appearances furnished by the disease. From his observations, it would appear that Budd and Axe were quite in error in regarding this affection of the pig as the analogue of typhoid fever in man; and Dr. Osler is altogether disposed to confirm Murchison's view of its resemblance to dysenteric affections. One thing seems certain, however, that it enters into Virchow's category of diphtheritic diseases. About the time that Dr. Osler was making his experiments Dr. Klein and others were engaged in a similar investigation. Dr. Klein had verified Prof. Axe's demonstration of the existence of the contagion in the serum of the skin, and had also induced the disease by inoculation with material from the intestine, but it was reserved for Dr. Osler to successfully utilize the juice of the lymphatic glands for the same purpose; and he was likewise the first to prove that the contagion is contained in the lungs, by the successful inoculation with caseous matter from the bronchial tubes. The following are Dr. Osler's conclusions:—

1. The so-called pigtyphoid is a disease *sui generis*, presenting anatomical and clinical features distinct from any other affection.
2. It presents no analogies, either pathologically or clinically, with typhoid fever in man.
3. Neither has it any affinity with anthrax, as claimed by some continental writers.
4. If we take the intestinal lesions as characteristic, the disease must be regarded, with Dr. Murchison, as dysenteric in its nature; although the cutaneous and pulmonary affections, as well as certain of the clinical features, meet with no parallel in human dysentery.

Births, Marriages, and Deaths.

MARRIAGES.

On the 24th July, at Penetanguishene, M. A. Spohn, M.D., to Editha S., daughter of Mr. A. A. Thompson.

On July 24th, 1878, at the residence of the bride's father, South Marysburg, by the Rev. E. A. Sanderson, Wm. Minaker, M.B., L.R.C.P., Edinburgh, to Miss Esther M., only daughter of Isaac Striker, Esq.

At Warkworth, on the 17th July, by the Rev. D. Sutherland, M.A., John W. Byam, Esq., M.D., L.C.P.S., the son of Rev. G. F. Byam, of Elia, to Ida May, eldest daughter of J. D. Bogart., Esq., M.D., all of Campbellford.

DEATH.

At Oakville, on August 23rd, David Dolmage Wright, M.D.

THE

Canadian Journal of Medical Science.

A MONTHLY JOURNAL OF BRITISH AND FOREIGN MEDICAL SCIENCE, CRITICISM, AND NEWS.

U. OGDEN, M.D., *EDITOR.*

R. ZIMMERMAN, M.D., L.R.C.P., London *171 Church Street Toronto, Corresponding Editor.*

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TORONTO, OCTOBER, 1878.

Selections: Medicine.

DISEASE OF THE KIDNEY.

Mr. D. T. Hamilton showed microscopic preparations illustrative of diseases of the kidney and, among others, that accompanying scarle' fever. In all the cases which he had examined, the change had been essentially that of an acute interstitial affection, characterised by the production of large depots of inflammatory cells between the convoluted tubercles of the cortex, sometimes distributed diffusely, but much more frequently in and around the glomeruli themselves. The lesion, which was most typical, corresponded to what has been described by Klebs as "glomerulo-nephritis." In one instance, the appearances, both to the naked eye and microscopically, were quite characteristic. The organs were taken from a child who had suffered from postscarlatinal dropsy, and died with uræmic symptoms. They were about twice the natural size; the capsule was non-adherent, and, on stripping it off, an extremely pale yellow mottled surface was left, with, here and there, congested venous radicles. On cutting into the organ, the cortex was found to be enormously enlarged, of a pale yellow colour, and had a mottled appearance very much like, at first sight, the mottling seen in parenchymatous nephritis. On closer inspection, however, the pale spots producing the mottling were seen to be rounded, and corresponded to the situation of the Malpighian bodies. The microscopic examination confirmed this opinion. The first thing that seemed to take place was a proliferation of the connective tissue nuclei within the Malpighian tuft, giving rise to great constriction of its blood-vessels. The Malpighian capsule then participated in the same process, becoming much thickened. Finally, for a short distance around the Malpighian body, there was very considerable inflammatory exudation of a similar nature, but limited to this neighbourhood. The epithelium in most of the convoluted tubules seemed comparatively normal. There was no blocking up of the tubules, and it was only here and there the epithelium appeared to be at all fatty. The lesion was entirely different from that met with in acute tubular nephritis, any alteration which might exist in the epithelium of the tubes being undoubtedly secondary to the much more evident and much further developed acute interstitial change. The medulla, further, was deeply congested, apparently from the obstruction to the circulation in the Malpighian tufts. The lesion seemed to be a very fatal one, and was usually accompanied by coma and convulsions. In other cases of scarlet fever which Mr. Hamilton had examined, the lesion was always markedly interstitial, affecting the cortex chiefly, and characterised by the deposition of inflammatory material between the convoluted tubules. In those cases where there was a tendency to resolution, it was apparently brought about by the inflammatory cells becoming fatty, instead of organizing; they broke down after a time, and were absorbed. The other specimens were illustrative of different forms of Bright's disease, with more special reference to chronic interstitial nephritis, which, in all respects, was a truly inflammatory process, and similar in its different aspects to

like affections in the liver and lung, although by no means necessarily accompanied by them. Preparations from a case of pyelo-nephritis were also exhibited, showing a complete infiltration of the organ, with putrefactive organisms of the micrococcus variety. The affection presented exactly the same features as a diphtheritic mucous membrane, and undoubtedly was dependent on the same cause, namely, the introduction of some septic material into an organ previously weakened by disease. The beginning of these cases was usually a catarrh of the whole genito-urinary tract, following the passage of the catheter. There could be little doubt that this latter was the means by which the septic virus was introduced. The subsequent course of the disease consisted in the formation of a diphtheritic surface in the bladder, ureters, and kidneys themselves. The introduction of the catheter into a healthy bladder had evidently no effect; it was specially where there had been an old standing cystitis that it was so extremely dangerous.

Treatment of Glandular Sore-Throat.—Glandular sore-throat, by which I mean catarrhal congestion or inflammation in and around the glandulæ of the mucous membrane of the pharynx and larynx, is a very tedious and troublesome affection. It has been known as dysphonia clericorum; it is, in fact, the chronic sore-throat to which persons are liable who use their voice extensively, especially in large rooms or in the open air. I desire to draw attention to the usefulness of the topical application of borax in its treatment. I order a saturated aqueous solution, which the patient applies to his throat by the aid of Corbyn's throat-spray. The spray should be employed for several minutes thrice or more frequently daily, and midway between meals. If the larynx be much implicated, the patient should inspire deeply while the spray is playing upon his throat. I have lately found this very simple method of treatment of striking service. The cure may be expedited by the application of astringent solutions to the pharynx and larynx by means of suitable brushes. When there is much secretion, extract of eucalyptus is a good local astringent, which may be used in the form of lozenge. Half a dozen of Corbyn's or of Cooper's lozenges may be sucked slowly during the day.—James Sawyer, M.D., Lond., M.R.C.P.

From *L'Union Médicale.*

LOCAL TEMPERATURE IN PLEURISY.

At the meeting of the *Académie de Médecine* on 30th of April, M. Peter communicated an account of his researches upon local morbid temperatures. Following is a *resumé* of what M. Peter has observed:

1st. On the side of the pleurisy, the parietal temperature is always more elevated than the mean parietal temperature, which is about 35·8 (96·6). The morbid super-elevation or local hyperthermy is from about $\frac{1}{2}$ of a degree to 1, $1\frac{1}{2}$ or 2 degrees, and may even exceed this figure and reach 40 degrees (104·0).

2nd. The elevation of temperature increases as the effusion, and this hyperthermy may reach $2\frac{1}{2}$ to 3 degrees ($5°\frac{5}{8}$—$6°\frac{3}{4}$).

3rd. The elevation of parietal temperature decreases during the stationary period of the effusion, *i.e.*, when secretion is no longer going on; but, in general, the parietal temperature of the pleuritic side still exceeds by $\frac{5}{10}$ths to $\frac{15}{10}$ths ($1\frac{1}{8}$—$3\frac{3}{8}$) of a degree, that of the opposite wall, or of the sound side.

4th. Pleurisy does not elevate the parietal temperature of the side alone on which it occurs, it also elevates that of the opposite side, but the parietal temperature of the affected side is always more elevated (by some tenths of a degree or even one degree and more) than the parietal temperature of the sound side.

5th. The parietal temperature decreases little by little when the effusion is spontaneously reabsorbed, remaining, however, superior (generally by several tenths of a degree) to the parietal temperature of the sound side, and preserves for rather a long time this temperature higher than that of the sound side and than the normal state. This temporary persistence of the local hyperthermy explains the possibility of relapse of the disease.

6th. In cases of pleurisy without effusion, the local hyperthermy is less elevated than in pleurisy with effusion, and the return to the normal temperature occurs more rapidly.

7th. The absolute elevation of the local temperature of the diseased side is greater than the absolute elevation of the axillary temperature; this local hyperthemy precedes the axillary hy-

perthermy. Two facts which demonstrate the predominant influence of the morbid pleuritic process on the general state, or at least on the general temperature.

All that precedes applies to pleurisy left intact or untapped. M. Peter afterwards states the result of his researches in tapped pleurisies. He arrives at these conclusions :—

That the local hyperthermy, subsequent to puncture, in pleurisy as in ascites, is the consequence of the hyperæmia *à vacuo*.

That, in cases of pleurisy, this, altogether mechanical, hyperæmia is necessarily added to the anterior phlegmatic hyperæmia, against which the puncture has been absolutely devoided of curative effect.

That thus we have two hyperæmias in place of one ; that there hence necessarily results an increase of tension in the vessels of the still inflamed pleura.

That thus the fluid effused *de novo* may be richer in leucocytes and in red blood corpuscles ; that the possible purulent transformation of the renewed effusion inevitably occurs in certain cases where the tapping has been done during the very febrile stage of the pleurisy.

That thus this accumulation of hyperæmias, the sudden return of blood into the pleural cavity, aggravated by the local hyperthermy, explain the syncope, the pulmonary congestion, the subsequent albuminous expectoration, the pain, the oppression sometimes amounting to suffocation, observed in those cases of sudden depletion, that is to say, of sudden hyperæmia by evacuation, positively demonstrated in his researches on local hyperthermy.

Treatment of Glandular Engorgements. —Following the example of Nélaton, Dr. Quinart, a French surgeon, counsels the application of blisters not only on enlarged glands, but on those in which pus had already formed ; and he says that by this method he has succeeded in obtaining the resolution of inflamed glands which have already contained many ounces of pus. When the perforation of the skin is imminent, he punctures the tumour at its most depending part, and as soon as the pus has been discharged he covers it with a blister which is extended to a margin beyond its limits. The next day the blistered surface is dressed with mercurial ointment, and a new blister is applied as soon as the first surface begins to dry up.

Surgery.

ON THE TREATMENT OF ENLARGED PROSTATE.

BY WASHINGTON L. ATLEE, M.D.

[Read before the Philadelphia County Medical Society, January 23rd, 1878.]

One of the most troublesome, annoying, and distressing diseases that I have been called upon to treat during a long professional career, and one whose treatment until recently has been most unsatisfactory, has been Enlargement of the Prostate. As this has been the universal experience of the profession, I need not collate and record the past history of the treatment of this malady. So far as a reduction of the size of the gland is concerned, it has been an entire failure. The mechanical obstruction to micturition was considered to be a permanent difficulty, and required mechanical means to overcome it.

Neither need I lengthen this paper by detailing the symptoms of this disease, as every member of this Society must be too familiar with them.

I wish merely to call your attention to a few anatomical, physiological, and therapeutical facts, which led me to institute a rational practice in the treatment of enlarged prostate, and which, I am happy to say, has proved highly satisfactory, and has surprised me in its results. My experience has now extended over several years, and although the success of the practice is, perhaps, not what many could wish, yet it accomplishes results heretofore unknown.

"The prostate is essentially a muscular body, consisting of circular or orbicular involuntary fibres, with one large central hole for the passage of the urethra, and another smaller oblique opening, directed upward below the former, for the transmission of the common ejaculatory seminal ducts to the central urinary canal . . . Its circular fibres are directly continuous behind, without any separation, with the circular fibres of the bladder." *Ellis.* "The prostate is thus essentially a circular involuntary sphincter to the neck of the bladder, and expeller of the seminal fluid ; but although it contains many mucous glands and follicles, intermixed with muscular fibres, it is by no means entitled to

the name of *gland*. It contains, further, a small vesicle or uricle, at the mouth of which the ejaculatory ducts open, and which is believed to be the male homologue of the female uterus." *Dewitt.*

Besides the involuntary muscular tissue which enters into the composition of the prostate itself, the vessels of the gland have also in their coats the unstriped or involuntary muscular fibre. The same exists in the coats of the bladder in a very marked degree.

These involuntary muscular fibres are more or less extensible, and, when normally stretched, have an organic tendency to contract. This we see in the uterus, in the bladder, and in the diastole of the vascular system.

Now, these are the anatomical and physiological data on which I propose to base my treatment of enlarged prostate.

Let us further inquire into the pathological condition of this enlarged organ, and its consequent derangements :—

"The affection consists in a hypertrophy or enlargement of the natural muscular structure, and incidentally of the glandular. It may affect the whole organ, especially the lateral lobes, pretty uniformly, in which case the prostatic portion of the urethra is greatly lengthened; or it may affect one side more than the other, in which case the canal will be twisted; or it may affect the posterior median portion, which lies between the ejaculatory ducts, enlarging it into what is commonly called the *middle or third lobe*. . . . Hypertrophy or derangement of the muscular fibres at and near the *trigone* may produce a transverse bar at the neck of the bladder. The enlargement, further, may be due to an increase of the organ generally; or to the development of one or many masses of fibrous tumour, exactly similar in structure to those connective masses of muscular fibre which are developed in the womb, and are commonly known as fibrous tumour." *Druitt.*

It is well known that in consequence of this enlargement of the prostate the accumulation of urine becomes excessive, the obstruction to its passage becomes serious, the coats of the bladder become enfeebled and semi-paralyzed, irritating deposits occur that are never voluntarily expelled, and that the catheter is the usual and only resource. Anything, therefore, which is calculated to diminish the size of the prostate and increase the contractile power of the bladder will meet all the indications required.

Have we any agent in the materia medica possessing the power to act upon unstriped muscular fibre and cause it to contract? It is settled now, beyond contradiction, that we have such an agent in *ergot*, and that in all cases of relaxed or stretched involuntary muscular fibre this medicine will meet the requirements. Witness, for instance, its action upon the enlarged uterus, the distended bladder, in hæmorrhages, in congestion of the capillaries, etc. It is calculated not only to contract the muscular fibre of the prostate, but also its capillary vessels primarily, and also secondarily, as a consequence of muscular contraction, and thus diminish the size as well as the nutrition of the gland. It is likely to accomplish this not only in mere hypertrophy, but also in enlargement from myomatous growths, in the same way as it does in fibroids of the uterus. At the same time that the size of the organ would be lessened and the mechanical obstruction be removed, the power of the bladder would be augmented by the same agent, and the urine is thus expelled without the aid of the catheter.

I may reduce these views to the three following propositions :—

1. That the prostate and its vessels are possessed of unstriped muscular fibre.

2. That the bladder is a hollow organ, with an involuntary muscular coat.

3. That ergot will contract unstriped or involuntary muscular tissue, as it does in the uterus.

Therefore, as a corollary, ergot ought to be a remedy for enlarged prostate and its effects.

This was the theory on which I based the practice, and whether the rationale is correct or not, my experience in the use of ergot in such cases had been most satisfactory. Several patients over sixty years of age have been treated with ergot, and have been able to lay aside the catheter after having been the victims of its daily use. When called to a case of retention from enlarged prostate, my rule is first to relieve the bladder by means of the catheter, and follow this immediately by ordering twenty drops of

the fluid extract of ergot every four hours, until the patient gets entire control over his bladder. Until this is accomplished, I continue to relieve him with the catheter every twelve hours. As his power of urination is restored I diminish the frequency of the medicine, and gradually end in giving a dose every night. A gentleman who died last month, at the age of ninety-two, was exceedingly ill in August, 1872, in consequence of retention of urine from enlarged prostate, and had to be regularly catheterized for relief. He was placed upon the above treatment, and in a few days was able to do without his catheter. His urinary organs were kept in a good condition by taking a dose of ergot every night, and he enjoyed much better health in consequence, and died recently of old age. I mention this case in particular, because a post-mortem examination proved to me that the prostate had been diminished in size by the treatment.

In these cases it is very common for sedimentary deposits to accumulate in the bladder, which becomes a source of irritation and discomfort, and if the organ should fail to expel its contents entirely, it is best every few days to introduce the catheter to remove them.—*New Orleans Medical and Surgical Journal.*

Dislocation of Muscles (*The British Medical Journal*, July 13, 1878).—Mr. George W. Callender, after detailing some interesting cases of this injury, concludes as follows: "If, then, you come across a case in which sudden or unusual movements of the body have been followed by pain,—local in its character,—made worse by certain movements, or preventing certain movements, and epecially if such pain be referred to the site of muscular digitations about the spine or to that of long comparatively slender muscles, as in the forearm, it is at least worth your while to try the simple measures which we may use for reducing the dislocation of a muscle. First, guided by the pain, decided as to the muscle or digitation of a muscle probably the seat of the trouble. Secondly, relax this muscle so far as you can. Thirdly, by firm manipulation, such as by rubbing with the hand or by kneading with the thumb, endeavour to replace it. Fourthly, if this fail, make pressure over the part whilst you bring the muscles into action or put it on the stretch; and, if the less painful measures have failed, it is almost sure to bring the muscles into position. All this has to be done without the employment of an anæsthetic. We need guidance from the patient; we require action in the muscle. Some amount of pain is inseparable from the treatment of these dislocations."

FOREIGN BODY IN THE SIGMOID FLEXURE: SUCCESSFUL REMOVAL.

A rare and curious case is related by Dr. Studsgaard of the Communal Hospital in Copenhagen, in a recent number of the *Hospitals-Tidende*. A man, aged 35, introduced into the rectum, with the open end uppermost, a preserve-bottle nearly seven inches long, for the purpose of stopping a diarrhœa. The next morning, he complained of pain in the abdomen; chloroform was given, and the bottle, which could before this be felt in the rectum, passed higher up, and he was brought to the hospital (January 10th). The bottle could be felt through the abdominal wall, lying in the middle line, with the bottom close to the horizontal ramus of the pubic bone. In the afternoon, he was deeply narcotised, and the posterior linear rectotomy was performed, and an attempt was made to reach the bottle, but without success. Abdominal section was therefore performed, under antiseptic precautions, in the linea alba. An incision having been carried four inches downwards from the umbilicus, a loop of intestine, apparently a portion of the sigmoid flexure, was protruded with the neck of the bottle. The bowel was then divided over the mouth of the bottle and a little way down the neck, and removal was effected slowly. The neighbouring parts were protected by sponges and compresses from the escape of fæces; and, after the bowel had been cleaned, twelve or fourteen catgut sutures were applied to it, each being, for safety, tied with three knots. The bowel having been replaced, the wound in the abdominal wall was untied by eight silk sutures. The operation lasted an hour. Recovery was slow, and the prognosis was for a time doubtful in consequence of local peritonitis and the formation of abscesses, which opened partly through the incision in the abdominal wall and partly through the rectum; the patient was, however, discharged quite cured on April 16th,—less than fourteen weeks after the operation. The bottle was 17 *centimètres* (6.8 inches) long, 5 *centimètres* (2 inches) in diameter at the lower end, and 3 *centimètres* (1.2 inches) at the upper end. In commenting on this case, Dr. Studsgaard refers to three others of a similar character; one related by Ogle, in which recovery followed spontaneous discharge of the foreign body (a stick); one by Closmadeuc, where the patient died of peritonitis, without operation; and one in which laparo-enterotomy was successfully performed in 1849 by Reali of Orvieto.

Midwifery.

ON DIGITAL DILATATION OF THE OS IN LABOUR.

BY W. STEPHENSON, M.D., F.R.C.S.E.

When in normal labour the membranes are ruptured, whilst the os is not obliterated, the posterior part of the head clears the os first, the anterior being still held back by the rest of the cervical tissue. There is a clear gain by this movement, the head is more flexed, a smaller diameter is presented, and the rotation forward of the occiput becomes easy. This is the movement we must not disturb, but if possible facilitate. In aiding labour, therefore, at this stage the support and upward pressure must be exerted only so as to push, as it were, the lip of the cervix *over the occiput;* it must never be done over the forehead. A careful diagnosis of the position of the head must be made, and the direction of the support determined accordingly. The part selected should never be the *anterior* lip, as described by our authors. In the first position of the head the part corresponds with that opposite the left thyroid foramen, and comes readily to the fingers. In the second position it is opposite the right thyroid foramen. In the occipito-posterior position the treatment is carried out less readily, but can still be accomplished, the direction of the force being towards the corresponding iliosacral synchondrosis. The success of the manœuvre is dependent upon aiding the occiput to descend first. If then it be practised at haphazard, and always in the same direction, failure is certain to follow in many cases. By its improper use the anterior portion of the head may be enabled to lead, and the normal mechanism is disturbed. If the pressure be exerted at the side of the head, as it will be if directed immediately behind the pubes, dilatation does not take place, and the head is really held back. The pressure must be exerted only during a pain, and the patient be directed to bear well down. The efficiency of the uterine action is thereby greatly increased.

This method of aiding labour need not be confined to protracted cases; gentle and properly directed support is of advantage in all. The force employed need not be more than is represented by the word support. A due amount of chin-flexion is secured, and upon this depends the facility of the subsequent rotation of the occiput. More especially is this of importance in the occipito-posterior positions; if attention be paid to secure early and full flexion of the chin no difficulty will be experienced in the rotation. Before it is possible in the latter cases to slip the cervix over the occiput an initial degree of chin-flexion is necessary. If the forepart of the head is on a lower level the occiput is beyond the range of the fingers, and the manœuvre is impossible. Aid may then be extended by pushing the forehead upwards during the interval of the pains and retaining it as far as possible in that position by pressure during the contraction of the uterine walls, and repeating this manœuvre until the posterior fontanelle can be felt.

Greater precision may be given to our opinions regarding the use of digital dilatation by the more recent advances of our knowledge regarding the changes which occur in the body and cervix of the uterus during the first stage of labour through the reseaches of Litzmann, Bandl, Braune, and Luschka. The lower uterine segment of the body of the uterus and the tissues of the cervix both undergo dilatation; but in the former the transverse expansion is associated with marked shrinking or shortening of its longitudinal diameter, whilst the latter is greatly stretched and lengthened. The division between uterine segment and the cervix is what is known as the internal os, whilst the external os is what we recognise as the os of ordinary obstetric language. The distance between these, as shown by Braune's frozen section, may be as much as four inches. In normal labour the dilatation of the internal and external os go on simultaneously, the former slightly in advance of the latter. This relation, however, may be deranged. The internal os may be fully dilated whilst the external is very small. We cannot, however, get any degree of dilatation of the external os without the previous opening of the internal. The opinion which I would advance is this: that digital dilatation can exert a beneficial action only upon the cervical tissue, we cannot by this

means aid the expansion of the lower segment of the uterine walls. So long, therefore, as delay is associated with incomplete dilatation of the internal os digital interference should not be employed ; but when delay is due to want of dilatation of the external os whilst the expansion and retraction of the internal has well advanced, we may expect benefit from artificial means. The degree of dilatation of the internal os I believe we can estimate by the condition of the upper portion of the vagina. When the former is complete the latter also is fully expanded and drawn upwards. If the external os has not been simultaneously dilated, the cervical tissue will be felt stretching across like a diaphragm, with a varying degree of thickness and resistance. If, however, the internal os be not fully dilated the upper portion of the vagina will be found lax and attached near to the os, or curving in towards it. Digital dilatation will then have no beneficial effect unless it be by stimulating the uterine contraction. But when the diaphragm is developed it will yield to judicious gentle manipulation ; if the os be small by a rotatory action of the fingers ; when once half-way dilated, and the head in actual contact, by support and gentle pressure of the lip in the direction of the occiput. A clear conviction should also be established that the cause of delay is in the cervical tissue only, and not due to want of rupture of the membranes, or to malposition of the head, to abnormal direction of the uterine axis, or to narrowing of the pelvic brim. Many cases of tardy dilatation are due to these causes, and of course cannot be aided by artificial dilatation.

By care in diagnosis the time when digital dilatation may be employed with advantage can be readily determined, and if practised as I have indicated, with due regard to the mechanism of labour, it may be employed with precision and safety. It affords material aid, increases the effective character of the pains, insures and facilitates the normal movements of the head, and if properly employed is free from all danger to the patient. It is a proceeding, therefore, which merits recognition at the hands of obstetricians, more than it has hitherto received. By extending our aid in the first of labour by watching and furthering the normal mechanism, I am confident that we may very materially lessen the frequency with which in recent times instrumental interference is deemed necessary.—*The Obstetrical Journal.*

ON SOME OF THE CHANGES IN THE UTERUS RESULTING FROM GESTATION, AND ON THEIR VALUE IN THE DIAGNOSIS OF PARITY.

BY JOHN WILLIAMS, M.D.

The author, after referring to the Wainwright murder, said that cases of a similar nature might unfortunately arise in which the question, " Has a given uterus taken part in the processes of gestation and parturition ?" would become one of the greatest moment. The conditions which it was his intention to describe in the present paper were those which remained after the process of involution was over—say, the eighth week after delivery. The characters which usually supplied the data for the formation of an opinion on the question in view were not reliable, as any one of them might arise from other causes than pregnancy. The only certain marks, as he hoped to show, were to be found in the bloodvessels of the uterine wall. The arteries of the uterus underwent enlargement during gestation as well as the muscular elements of the organ, their calibre becoming increased, and their walls hypertrophied. After parturition their calibre became reduced owing to the contraction of the uterus, and the substance of their coats probably diminished ; but they appeared to be affected by the retrograde process in a less degree than the tissues of the uterine walls generally. In a section of a uterus which had undergone involution, the arteries projected beyond the surrounding surface, presented thick yellowish-white walls, more opaque than the tissues around, and their canals remained patent. On microscopical examination, the connective tissue around the arteries was found to be increased in quantity, the arterial muscular coat was greatly hypertrophied, and the inner wall considerably thickened. The vessels appeared, moreover, more numerous than in the virgin organ. To estimate the exact value of these conditions in the diagnosis of the existence of previous pregnancy, three questions should be answered : (1) Was the condition described present in all uteri which had been gravid ? (2) Was it a permanent condition ? (3) Was it simulated by disease ? Setting aside such rare and exceptional cases as those in which the uterus became

reduced after parturition to a mere membranous sac, the author had found the characters he had described in all the uteri which had born children, which he had examined during the last five years. He had found them as long as fifteen years after the last pregnancy, and eight years after the cessation of menstruation, and under such circumstances their pregnancy, he thought, might be fairly inferred. He had never seen the appearances brought about by disease, and neither he, nor as far as he was aware, any other observer, had found them in the virgin organ. It must remain for further experience to decide the question whether similar appearances could be produced by the presence of a fibroid or other tumour. It could not indeed at present be asserted that the state of the uterine arteries described furnished positive proof of parity, but at the same time it must be admitted that it afforded the strongest presumptive evidence we possessed of that condition, while further research might show that it amounted to absolute proof of previous gestation. Passing on to the veins of sinuses of the uterus, the author said that these were all enlarged during gestation, but the enlargement was far more marked in that part of the wall to which the placenta was attached. Friedländer had investigated the condition of this part during the last two months of pregnancy, and found that at the eighth month many of the venous sinuses were surrounded by a wall 0·04 mm. in thickness; this wall contained abundant tolerably large nucleated cells in a clear homogeneous matrix, which became distinctly coloured by carmine solution. The contents of the sinus appeared to consist, not only of blood corpuscles, but also of a greater or less number of dark granular cells, containing two to five nuclei, one of which had the appearance of a vacuole. These, which were regarded by Friedländer as wandering cells from the decidua, at last completely filled the sinuses, and coagulation took place, the clots showing a net work of fine threads. Other sinuses, though not filled with these cells, also contained coagula at this period (eighth month). The author had only an opportunity of examining one pregnant uterus, but after delivery he had not unfrequently found clots with a network of fine threads, though he had only rarely seen accumulation of large granular cells occupying the sinuses near the inner surface. At the end of four weeks, however, a great change had taken place. The walls of the sinuses at the placental site were much thickened, being due in part to a thin zone of connective tissue, within which was a granular glassy-looking transparent substance thrown into folds. The interior of the vessel was either entirely filled with these folds, or its centre was occupied with the organised remains of a clot, or a narrow lumen might still be left. The folded layer when torn by needles broke into particles of polygonal shape similar to some of the epithelial cells originally lining the sinus, and it appeared to be a distinct growth resulting from the proliferation of these cells. This condition had been found by the author, though somewhat indistinctly, twelve months after delivery. It might therefore be regarded as diagnostic of the previous existence of pregnancy; and when found justified a positive answer as to parity. It was true the structures described were not permanent, but they were discoverable for twelve months after parturition.

The President said that the thanks of the Society were due to Dr. Williams for his interesting paper on a subject the importance of which it was impossible to exaggerate.

Dr. Matthews Duncan expressed his sense of the extreme value of the contribution, and Dr. Playfair, while hesitating to pass any criticism upon the paper, said that he would not like the occasion to pass without bearing witness to the ease with which the changes described by Dr. Williams could be made out under the microscope. He did not doubt that when one had once had them pointed out to him, he would be able to recognise them again.

Dr. Savage asked if Dr. Williams was perfectly sure that what he had described might be taken as a precise criterion of parity.

Dr. Williams stated in reply that he regarded the appearances found in the sinuses of the uterine wall at the placental site as inimitable, and therefore diagnostic of previous pregnancy. With regard to the value of the condition of the arteries which had been described, further research was necessary before it could be estimated at its proper value.—*Obstetrical Journal.*

Therapeutic Notes.

CLINICAL LECTURE ON SOME MEDICAL USES OF CARBOLIC ACID.

Delivered at the Norfolk and Norwich Hospital.

BY PETER EADE, M. D. LOND., F.R.C.P.,
Physician to the Hospital.

This carbolic acid (or phenic acid, as it was formerly called) is, as you know, one of the products derived from the oil of coal-tar, and has a chemical composition of $C_{12}H_5O + HO$. It is met with either as an oily liquid or in the crystalline form, and has an acrid burning taste, and a strong odour closely resembling that of creasote. It is slightly volatile, and is readily soluble in water, oil, or glycerine. One of its most valuable properties is that of preventing the decomposition of animal tissue —a property which it possesses in common with salicylic, boracic, chromic, and other acids and substances; but it is more generally useful than either of these, because it is not only more certain in its action, but may be employed in a more concentrated form without risk of injuring the parts or tissues to which it is applied.

The efficacy of the acid in checking diseased or septic action appears to depend upon its being brought into absolute contact with the part to be acted on, and it would seem to exert no beneficial effect beyond the exact limit of the part so touched.

The diseases in which I have found the carbolic acid especially usefully are—1. All that class of local festering, pustulating diseases of the skin which are at once so common and so difficult to cure. They include all kinds of pustules, boils, and carbuncles; sycosis, pustular acne, and festering ringworm. 2. Such strumous sores (especially of the neck) as come under the care of the physician. 3. Excoriations of the os and canal of the cervix uteri. 4. Phthisis in its second and third stages, and cases of chronic bronchitis accompanied with more or less purulent expectoration.

I have said that in order to be effective the carbolic acid must be brought into contact with the part to be acted on, and I doubt not that in many cases where it has been found ineffective the failure has been due to a neglect to ensure this contact. In the pustulating and suppurating diseases of the skin I have mentioned it is never sufficient to apply the solution of the acid, of whatever strength, upon or to the outside of the skin. It must always be introduced into the interior of the sore or pustule itself, and so as to come sufficiently in contact with every part of the diseased surface. Of its efficacy thus applied I have now had a very considerable experience, and so certain am I of its curative powers in these cases that I state with the utmost confidence that all cases of boils and carbuncles in their earlier stages can be absolutely aborted and cured, whilst even in later stages their further increase can be almost surely prevented. For this purpose a very strong glycerine solution should be employed, and it is best conveyed into the interior of the pustule, boil, or suppurating spot, by a new quill pen dipped into the solution, and introduced by a rotatory motion through its apex, where a sufficient aperture will generally be found. In carbuncles, which are necessarily larger, and often have several openings, several such introductions may be necessary, or, at a later period, threads of lint soaked in the fluid, may be passed with a probe well into all the sieve-like openings. Occasionally, as when the mass is large and solid, a watery solution of the acid may be injected with a hypodermic syringe into various parts of the hardened growth. The same plan of treatment is often quite effective in cases of sycosis, pustular acne, and festering ringworm. And it is doubtless so because it destroys germs which, living in the involutions of the skin, are the essential cause of these various diseases. In the case of acne, and of boils and carbuncles, the essential dependence of these diseases upon vegetable germs has scarcely been demonstrated,* but their mode of

* Mr. Startin has written that in a few cases of boils and carbuncles he has found cryptogamic vegetation like to that seen in sycosis; and I have recently had a case of small carbuncle, in which, amongst the masses of plastic and other cells obtained from its interior, I observed, on pressure, a cloud of small rounded granules suddenly to diffuse themselves in the fluid in the field of the microscope, which were undistinguishable from those of the Achorion Schonleinii.

origin and growth, their whole life-history, and their curability by such local means alone, go far to prove that they, like other skin diseases, are due to the development in the cutaneous textures or glands of parasitic growth. As, however, I have already published in the medical journals several papers on this subject, I will not longer dwell upon it now. Not long ago it was stated that the development of the vaccine vesicle could be prevented by the application of carbolic acid to the vaccinated sore. If this is so, it would seem highly probable that the same kind of destructive influence would be exerted upon the small-pox eruption if the acid were applied to the pustules before or during the process of their maturation. The process of introducing a little of the strong acid solution *into* the apex of each pimple would be tedious and disagreeable, but if effective, it might not only save much disfigurement, but possibly even life itself. Darkening of the patient's room, blackening of the face, covering up the pimples with wet clay (as practised by some savage tribes,)—all expedients for preventing the free development of the local disease,—appear to diminish its virulence somewhat, and possibly this more direct interference with the special virus might do much more to mitigate its severity. Various applications to the general surface have been tried and failed more or less completely, and Velpeau has advised the cauterisation of the individual pimples with solid nitrate of silver; but I am not aware that carbolic acid has ever been fairly thus tried, and I recommend it to your consideration when cases of this dire disease come under your notice.

2. The healing of strumous sores may be frequently much expedited by the bringing into contact with their interior or open surface a sufficiently strong solution of carbolic acid; and old stationary sores will often at once begin to heal when acid is so applied. So, too, when they are first opened, their immediate healing may be sometimes brought about by injecting into them a solution of the acid, and keeping the opening closed against the admission of air. This method of treatment, on a larger scale, has been advocated by Mr. Callender in the case of spinal abscesses, and some very successful results have been recorded.

3. In excoriation, or so-called ulceration of the neck of the uterus, the strong glycerine solution is a most valuable application, and in my hands has been far more efficacious than nitrate of silver or other usual caustics. In these cases the denudation of epithelium is, commonly, not only of the vaginal surface of the os, but it extends up along the canal of the cervix, and often (as Dr. Playfair has shown) into the cavity of the uterus itself. I have found no ill effect from applying the strong glycerine solution freely with a camel's-hair brush within the cavity of the cervix; and, indeed, it is not only well and painlessly borne, but is often very effective in promoting the healing of the "ulcerated" surface. I have thought it possible that its undoubted efficacy may be partly due to a power of destroying any bacteria or other germs living in the uterine mucus, and by their presence irritating the secreting surface, and so preventing the formation of healthy covering epithelium.

4. In cases of phthisis which have passed their earliest stage, and in which the sputum is of a muco-purulent character, you have almost daily opportunities of witnessing the efficacy of carbolic acid inhalations. In three patients now in the hospital the cough has been greatly lessened by its use, while at the same time the secretion of purulent mucus has been greatly diminished in quantity. As you have seen, we employ it in the simplest fashion. We give the patient a solution of the acid in water containing ten grains to the tablespoonful. We tell him to add this to half a pint of hot (not boiling) water in a narrow-mouthed jug surrounded by a towel or handkerchief, and then to inhale this for about ten minutes; and we order the inhalation to be repeated three, four, or five times in the twenty-four hours, according to the necessities of the case. The inhalation can of course be made through any ordinary inhaler, or it can be used with the acid in more concentrated solution, or in the form of spray; but I have found the above method not only simple and always available, but perfectly efficacious. In these cases, as in others, I believe the carbolic acid to act entirely

by its local influence. The vomica of a phthisical lung contains two elements: (*a*) the muco-pus already secreted, and lying more or less free in the cavity; and (*b*) less perfectly formed and separated mucus, still attached to the pyogenic or secreting surface. As atmospheric air laden with germs is constantly entering with the breath into these cavities, and as this animal mucus is a fertile soil for these germs to develop in, it is almost certain that such tendency to settle and multiply upon it exists; and the power of carbolic acid to prevent such life and growth would well explain its efficacy. But it is also known that carbolic acid does in some way prevent the rapid production of new pus and mucus cells, and in this way, too, some of its good influence may be exerted. But, whatever the explanation, there is no doubt that the use of carbolic acid in the form of vapour is a distinct addition to our therapeutical resources in the treatment of this disease. Many years ago tar-vapour was in much repute for the same purpose. The greater efficacy of carbolic acid is probably due partly to its purity and partly to the greater concentration in it of the active detergent principle, upon the presence of which the beneficial influence on the disease depends.

I will only detain you further to-day by mentioning one other form of medical disease in which carbolic acid is of some small help to us: I allude to those disorders of the stomach which are not only accompanied with fermentation and the flatulence induced thereby, but which show the actual presence of another form of low vegetable life. In the decomposing contents of the stomach in some of these cases may be detected by the microscope immense numbers of a small vegetable growth called Sarcina ventriculi. These little bodies are observed in clusters of adherent cells arranged in squares, each square containing four, or some multiple of this number, and they often present an appearance which may be roughly likened to that of corded woolpacks. In cases of this singular disease, some advantage is occasionally derived from the administration by the mouth of carbolic acid in doses of one or two grains; but as the presence of these bodies is usually, unfortunately, only the result and accompaniment of other and more serious change, its efficacy is generally proportionately slight.

I may mention to you that when carbolic acid is very freely applied to the surface of the body for any length of time, the urine is apt to become stained of a dark or blackish colour. But although this symptom is one which at once challenges attention, it appears to be of no real or serious importance, and at once disappears on the withdrawal of the producing cause.—*London Lancet.*

Hints for the Administration of Ether-Vapour.—Dr. Cheever, in the course of some clinical remarks published in the *Boston Medical and Surgical Journal*, gives some useful hints on the management of the administration of ether, which are particularly valuable as coming from a medical centre in which ether has long been regarded as the anæsthetic *par excellence*. "When the head of an etherised patient is allowed to fall too low, you will invariably find that trouble begins. The tongue naturally gravitates backwards, because the patient has no muscular control over it. Whenever this happens, stertorous breathing will at once be heard. It will then be necessary simply to raise the patient's head. The tongue comes forward, and respiration again becomes easy. There is another condition in which an etherised patient becomes tetanic. He has opisthotonos, draws himself forcibly and convulsively backward, and his movements are spasmodic. In such a case, the need is air, and the ether should be withdrawn. If he throw himself back with great force, turn him on his side, and the condition will pass off. Our patient is nauseated. After he has vomited, he will go to sleep easily."

Turpentine Externally in Variola.—Dr. Farr of Lambeth claims that turpentine relieves smarting or irritation, corrects unpleasant odours, arrests pustulation, and modifies, and often entirely prevents pitting. It also tends to prevent the spread of infection. Dr. Farr uses 1 part of turpentine to 3 or 4 of olive oil, applied by means of a feather, night and morning.

AMENORRHŒA.

Powdered rue	5	centigrammes.
" savin	5	"
" ergot	5	"
" aloes	25	"

ft. pil.

Of these, 3 are taken the 1st day; 6 the 2nd; and 9 the 3rd day, always in three doses. Foot baths, sitz baths, and fumigations are ordered before beginning the pills, and leeches are applied to the labia while the pills are being taken.

FOR PRICKLY HEAT.

℞. Sulphur sublimat	80	
Magnesiæ oxid	15	
Zinci oxidi	5	

M.

Place the powder on a plate and press a wet sponge on it. Rub the body with the sponge for fifteen minutes. Wash the parts clear of adhering particles.

FOR ECZEMA.

℞. Acid salicyl	gr.	40
Tinct Benzoin	ʒss.	
Alcohol		
Glycerinæ	āā q.s.	ad. solut.
Unguent emol	ʒi.	

M.

Rub in gently twice or thrice a day, after washing with soap and water.

FOR TAPEWORM.

℞. Flor kousso	ʒvi.
Kamela	ʒiv.

M.

Take half at 8 a.m., at 9 a dose of salts, and at 10 the other half.

RHUS POISONING.—Dr. D. J. Parsons in the *Pharmacist* claims that tinct. sanguinaria applied locally 4 times in quick succession is a specific. It must be spread pretty thick by means of a brush or feather.

GASTRIC ULCER.—Hertka of Buda treated a severe case successfully by chloral, given in 5 grain doses, well diluted, every two hours, so that 30 grains were given daily.

The combination of an opiate with quinia insures an earlier and more complete cure of malarial fevers, and less quinia is required.

Original Communications.

INFANTS' FOOD.

BY ADAM H. WRIGHT, M.A., M.B., M.R.C.S., ENG.

[Read before the Toronto Medical Society July 25th, 1878.]

My aim in this paper will be to describe briefly the different kinds of food given to infants and the proper modes of administration. According to the ordinary acceptation, infancy includes the period extending from birth to the age of two and a-half years, *i. e.*, until the completion of first dentition. Statistics show an alarming mortality among infants. Without going into minute details, I may say that those who have investigated the subject most carefully, tell us, that of all infants born alive in the civilized world, from one-quarter to one half die under the age of five years. One of the main causes of this mortality, especially among the poorer classes, is unsuitable diet, combined with irregular and improper methods of administering the food. I have often been struck with the appearance of children brought to hospitals for treatment, with their little old faces, and emaciated bodies, tugging away at some dirty-looking mixtures in bottles, and as a matter of curiosity, enquired from their mothers concerning the character of their food, and have found the varieties innumerable. In the majority of young infants three months old, they contained starchy foods, very commonly nothing but flour and water. I once heard Mr. Jonathan Hutchinson, when examining an infant about twenty months old, ask the mother what she fed the child; and on receiving the very common reply, "He eats the same as we do, sir," he (Mr. Hutchinson) remarked to those standing near, "that very often means beer and red herrings." Among the better classes, *i. e.*, those able to procure ordinary necessaries for their families, there is a better condition of things, but as far as my experience goes, even among them, regular feeding with proper food is the exception rather than the rule.

Infancy is a period of comparatively rapid growth and development. The mouth, in its formation, is well adapted for suckling immediately after birth. The stomach is small, and

somewhat resembles the large intestines in form. The intestines are relatively smaller and shorter than in the adult, and their peristaltic actions are more rapid, so that excrementitious matters are quickly evacuated. The mucous membrane of the whole alimentary canal is thick, soft, very sensitive, and easily irritated by improper food. The saliva commences to be secreted in the third month, but at that time contains little or none of the active principle necessary for the proper digestion of starchy foods. According to Archambault and Chambers, the infant requires, during the first day after birth, 3 to 4 drs., during second day 4 oz., third day 10 to 11 oz., fourth and fifth day about 1 pint. The amount required gradually increases until the sixth month, when 2 or 2½ pints are required. Dr. Wm. Henry Cumming tells us, the infant after three months requires form 1½ to 2 qrts., but I think few will agree with him. It is almost universally admitted that the mother's milk is the proper food for young infants. There are, however, exceptions; the most remarkable one, so far as I know, being the famous chemist, Van Helmont, who called milk "brutes' food," and proposed instead, as more suitable nourishment, "bread boiled in beer and honey." The healthy mother's milk appears to be perfectly adapted as to quantity and quality for all the requirements of the infant during the first months. The colostrum at first present acts as a purgative, carrying off the meconium. Although the secretion of milk is not fully established before the third day, yet there is generally a sufficient quantity for the child. The milk contains aqueous, saccharine, albuminous, and oleaginous principles. As compared with cow's milk, it contains more sugar, but less butter, casein, and salts. In addition, human milk is more alkaline. The fatty constituents are more finely emulsified. The casein is neutral, or slightly alkaline, easily soluble in water, coagulates in loose, fine flakes, and is digested quickly; while cow casein has an acid reaction, is insoluble in water, and coagulates in large, adhesive lumps. For these reasons, no artificial preparation of cow's milk (and the same may be said of other animals) can be made so digestible as human milk. The character of this milk is subject to various modifications. It may be scanty, or though sufficient in quantity, too watery. The colostrum, which should disappear between the third and eighth day, may not do so for several weeks, or it may be affected by errors in diet, nervous impressions, acute diseases, menstruation, or pregnancy. It is the duty of the physician to observe carefully these changes, and, when possible, to apply the remedy for them. Dr. Cumming says that nine-tenths of the mothers of the United States are unable fully to supply their infants with milk. He may be led to this conclusion by the high estimate of the amount required by an infant three months old—*i. e.*, 1½ to 2 quarts. Drs. Muir and Whitehead, of Manchester, from an examination of 952 mothers in the Children's Hospital of that city, found that nearly half had sufficient food for six months after delivery, and some for two years. In this country I think that half the mothers, at least, have a sufficiency. Dr. J. Lewis Smith thinks that the appearance of the menses during lactation does not generally injure the milk, unless excessive in quantity, though it may sometimes, but pregnancy is more injurious, because then the milk is more likely to contain a considerable quantity of the viscid substance found in colostrum.

When the mother's milk is insufficient or absent, we have to supply the deficiency by procuring a wet-nurse, or by artificial feeding. Statistics of hospitals for foundlings show a great difference in mortality between the wet and dry-nursed. In Lyons and Parthenay, where the children are wet-nursed, the death-rates were 33 and 35 per cent.; while in Paris, Rheims, and Aix, where the children are dry-nursed, the death-rates were 50, 63, and 80 per cent. This shows the importance of wet-nursing; but at the same time the medical attendant should always exercise great care in his selection of a wet-nurse.

In artificial feeding cow's milk is most generally used; and our object should be to make it as nearly like the natural food as possible. For the first six weeks Eustace Smith recommends equal parts of new milk and lime-water sweetened. Sir. Wm. Jenner adds to this cream in the proportions of 2 drachms to a

half-pint, the cream preventing the lime-water from causing constipation. After six months the milk may be taken undiluted. If a curd still forms, and is vomited, add isinglass, 1 drachm to 4 ounces of milk and water. This is said to prevent the running together of the curd. If this will not answer, we are advised to try a little farinaceous food, such as Ridge's, or boiled or baked flour, which, acting mechanically, prevents the curding. This may be true, but I am strongly opposed in young infants to the use of such food, which, according to its advocates, simply splits up the casein on the same principle as carpet-tacks would act, but must, at the same time, be a source of irritation to the whole alimentary canal.

J. Lewis Smith thinks it is preferable to take the upper third of the milk after it has stood two or three hours, because the casein, having a high specific gravity, tends to sink, and dilute it with one-third to one-half water. Dr. W. Henry Cumming, who, while in Toronto eleven years ago, published a small work on this subject, favours this method of preparing the milk; but also proposes what he considers a better method: *i. e.*, to take the latter half of the milk given by the cow, which contains what the country people call "the strippings," and is very rich, having $\frac{56}{1000}$ of butter, while the first half has only $\frac{21}{1000}$. This should be diluted with $1\frac{1}{4}$ parts of water. Dr. Eustace Smith recommends as an addition to breast milk when it is scanty, the following mixture,—

One tablespoonful of		Cream.
One	"	Whey.
Two	"	Hot Water.

The whey is made by adding one teaspoonful of prepared rennet to a pint of new milk.

During the last few years concentrated cow's milk, known as condensed milk, has been largely used. It is prepared by taking the milk immediately from the cow and putting it two inches deep in shallow boilers with flat bottoms, and heating by a water-bath. White sugar is added in the proportions of one ounce to the pint; and when it is reduced about four-fifths in bulk it is poured into cans, hermetically sealed, and subjected to a heat of 218° Fahrenheit. The heat destroys ferments, but has the objection that it gives it the taste of boiled milk. It is prepared in another way by evaporating by means of a vacuum apparatus. Dr. Franz Peters says that this is better than fresh cow's milk, as it causes no digestive disturbance of any consequence; but adds that it causes deterioration of the bones. He advises the following proportions: one of condensed milk to twenty two of water for the first three months, one part in eighteen for the next five months, and after this one part to twelve. This is rather weaker than I have been accustomed to use it. The kind known as the "Swiss Condensed Milk" is very largely used in England, as well as several parts of the continent. In New York they use mostly the American brands. Roberts, Bartholow and Porter, of New York Dispensary for Sick Children, praise it highly; and those who use it in this city are, so far as I know, very well pleased with it. For the last two years I have seen it used a great deal, and have given to my own three children; and while I cannot think it superior to fresh country milk, still, in a city, I prefer it to cow's milk as it is offered to us, especially when it is sold at three cents a quart. Even under the best of circumstances cow's milk is subject to a variety of dangers. The dishonest milkman may add various impurities too numerous to mention; and the honest man may, through carelessness or ignorance, make mistakes: such as selling the milk too soon after calving, in which case it will contain colostrum; or the milk may be contaminated by the various vessels in which it is retained up to the time of delivery; or the cows may have some disease, or bad food. Even if all these dangers are avoided, there remains the churning process to which it must be subjected in its carriage from the dairy to the consumers. Of course, condensed milk may be liable to some of the same dangers; but as those concerned in its preparation make it their especial care to avoid these sources of evil, and have a good knowledge of their business, I think the milk is less likely to suffer from adulteration and contamination. As a matter of fact, all who have observed carefully its use thus far admit that it is pure (*i. e.*, so far as I have seen or read), but, as Chambers says, "Extensive use will probably teach ingenious methods of sophistication."

The milk of other animals, such as the ass, goat, and ewe, is also used, but so seldom in this country that I need not say much about them. Asses' milk is apt to cause diarrhœa, but that may be prevented by adding a-quarter lime-water. There is an objection to goat's milk on account of the unpleasant odour it often possesses from the presence of hircic acid, but the goat has the advantage of cheapness and convenience, and may be treated as Paddy does his pig, when he makes it one of the family.

Eustace Smith recommends raw meat, beef or mutton, when other kinds of food having been tried, and being indigestible, have produced diarrhœa in children, about one year old or upwards. In preparing it for use, the meat being freed from fat and gristle, is minced and pounded in a mortar, and strained. When giving the meat he stops all other food entirely, and no fluid is allowed excepting thin barley water or something of a similar nature.

After the age of six or nine months eggs, especially the yolks, are, as a rule, digestible and nourishing.

Cod-liver-oil is often useful in strumous children, and easily digested when given in doses not greater than ten drops to infants under two years of age. The external use of oils is thought by some to be very beneficial in chronic wasting. Eustace Smith advises it to be warmed slightly and smeared over the whole body with a piece of fine sponge, after which the child is to be wrapped in flannel. Smith thinks that this, besides rendering the circulation more vigorous, promoting the action of the skin, and quieting the irritability of the nervous system, introduces a certain amount of nourishment.

I will now take up a different class of food, *i. e.*, farinaceous. It is generally conceded that starchy food is unsuitable for the young infant, and yet I have seen very few children at the age of six months who have not had more or less cornstarch or arrowroot, or something of that description. Many mothers appear to get disgusted at the monotony of feeding nothing but milk, and are quite unhappy until they get their babies' stomachs well plugged with some kind of dough, and then they wonder why flatulence and colic should exist. Certainly they should not be blamed when they pursue this course in ignorance; but I have often seen such a plan of feeding followed after directions to the contrary had been given.

As I said before, saliva begins to be secreted during the third month. Drs. Bidder and Schmidt found that saliva collected from an infant four and a-half months old converted starch into glucose with great difficulty, and very slowly. Prof. Schiff says the active principle of saliva in man only appears at the period of first dentition, or about the sixth or seventh month. Dr. Prospero Sonsino, after noticing these results, performed experiments on certain young animals: viz., the dog, cat, and rabbit, at ages from five to fourteen days, and found that the pancreatic emulsion of these animals could not transform starch into glucose, even after long contact; while the same emulsion of adult animals did so almost immediately. From these facts he thinks that in the human race the enteric and pancreatic juices in young infants have no more effect on starch than the saliva has at the same age; therefore he concludes that in young infancy there is a physiological dyspepsia, or even apepsia, for starchy matters. After the age of six or seven months farinaceous food may be given, but in small quantities at first and increasing very gradually. I can only mention a few of the various kinds of this class of food.

Liebig's food for infants is recommended by Tanner, Eustace Smith, and J. Lewis Smith, who say it is well digested even by the youngest infants. The following is the composition:

Wheaten Flour - -	½ ounce.
Malt Flour - - -	½ ounce.
Potas. Bicarb. - - -	7¼ grains.
Water - - - - -	½ ounce.
Cow's Milk - - -	5 ounces.

This is well mixed, heated gradually at first, and then boiled and strained. The object is to convert the starch into dextrin and sugar. Chambers, however, says that "Laputa never devised anything more preposterous than this food," and after enumerating all the risks incurred in its preparation, adds that "sensible parents will be content to leave the recipe to some coming race who may prefer art to nature."

Ridge's and Nestle's food are highly recommended by some, and are very much used; but I cannot give their composition. It is very important that Ridge's food should be fresh; and as Nestle's is slightly laxative, it is not suitable when there is any tendency to diarrhœa. Eustace Smith speaks highly of wheaten flour prepared by putting a pound in a pudding cloth and tying it up tightly. This is boiled about ten hours. When cold the cloth is removed, and the outside soft portion is cut away, and the nucleus is reduced to powder with a fine grater. Dr. Underwood's baked flour is prepared by slowly baking wheaten flour for a long time in a small covered jar until it breaks into a soft, greyish-coloured powder. I may mention, as among the best farinaceous foods, stale bread, plain biscuits, and barley prepared as barley-jelly or barley-water.

In making a few remarks on methods of feeding, I will suppose that all admit the importance to the infant of nursing from the mother or a carefully-chosen wet-nurse. If the supply be scanty, or the mother's health be suffering from the constant drain, a small amount of cow's milk, properly diluted, may be given to the infant in third or fourth month. It is important that the greatest care be exercised during the hot months of summer, especially in cities, and artificial feeding should on no account be commenced at this season if it is possible to avoid it. The infant should be weaned between the ninth and fifteenth month. The time should, however, be influenced by various circumstances: such as the strength or debility of the mother and the occurrence of menstruation or pregnancy—but even the existence of pregnancy should not cause the child to be weaned during the hot months, unless the milk is found to affect the child very injuriously. If in any case it is found necessary to wean a baby living in a city during hot weather, and if no wet-nurse is obtained, it should, if possible, be sent to the country, where artificial feeding is found to be less dangerous. Dr. J. Lewis Smith says that more than half of the spoon-fed children of the United States who enter the summer months die before the return of cool weather, unless saved by a removal to the country. Weaning an infant should always be a gradual process, as the child tolerates this better than the old-fashioned mode of consulting the first page of the almanac and the stars, and then weaning on a certain day. When the mother's milk is wanting wholly or in part, and no wet-nurse is obtainable, we are compelled to resort to artificial or mixed feeding, *i. e.*, milk diluted according to the methods advised by Eustace Smith and other physicians to which I have alluded. If it is found that the child is failing on one kind of food, make a change and give some other kind from the various formulæ given. Many improve on a change from ordinary cow's to condensed milk. Try to make the change in time. Don't wait until it is nearly exhausted by chronic wasting and diarrhœa. It is a safe rule to prohibit entirely the use of farinaceous food during the first six months, and, I may add, in many cases, till the infant is eight or nine months old. As Dr. Sinsino has proved, before this period, it cannot be digested, therefore it can only be a source of irritation, and when given during the hot weather it is the most common causes of diarrhœa, which in the cities of this continent makes such sad ravages among our children. The doctor is in a position to do a great deal towards educating people on this important question. The mother who has the welfare of her young babe at heart is anxious to do everything for the best; but she is sometimes surrounded with such an army of meddling busybodies and wise old women, each of whom has such a variety of foods to offer "the dear little one," especially when it is sick, that she is in despair, and in her confusion gives a little of everything, and very often the baby gets the greatest variety, when the stomach and bowels are in an irritable condition, and the addition of indigestible food at such a time is only adding fuel to the fire. In such cases as these the Dr. may do incalculable good by giving his directions distinctly, with his reasons for them, and if he wins the mother's confidence in such a way, his orders will be obeyed. If we commence farinaceous food after the sixth month, very little should be given at first. In using the boiled flour, Dr. Smith says, one to two drachms is sufficient for the child during twenty-four hours, and this should be given in two doses. The

child can thrive with very little in addition to good milk, and it is a good thing to err on the safe side and give little else. After six to nine months, occasional changes may be made by giving beef or veal broths, or the yolk of an egg. After one year they may gradually commence bread and butter, potatoes, and towards the end of the second year a little solid meat, but whatever the additions may be, let milk be as largely consumed as possible to the end of infancy, and though it is beyond our limits to go past infancy, I may add, let it be continued as long as possible.

In feeding infants, one of the most important elements is regularity. Donnè says, "Mathematical exactness in this matter would be ridiculous," but it is well to come as near it as we can. As a rule, the babe should not be disturbed while sleeping; but, as Lewis Smith says, "ill-nourished children, after long wakefulness and great prostration, become drowsy, and sleep a great deal." In such a case increased nutrition is required, and the infant should be roused frequently to be fed. The most common mistake is too frequent feeding. A great many mothers feed their children every time they cry, and as they are most apt to be cross and fretful when they get "out of sorts" from indigestion, they are likely to get their food very frequently just when it is most important they should not do so, and flatulence, colic, vomiting, and the various disorders of digestion are apt to ensue. If to this error in feeding is added the one before mentioned of giving starchy food when it cannot possibly be digested, or in larger quantities than can be digested, you get a combination of evils which is very trying to the digestive apparatus, which is so sensitive in infancy. Particular directions should be given on this point, and if the nurse or mother begins to feed the baby every hour and a-half, or two hours, during the day, and about twice during the night, it will, as a rule, soon be educated into good habits. The interval between meals may be gradually increased, and at six weeks should be about three hours during the day. From this time until the end of the first year the interval should vary from three to four hours. No matter how distinct the directions may be, they are not always faithfully carried out, especially after a mixed diet has been allowed. To guard against mistakes, the suggestion of Eustace Smith is, I think, an exceedingly good one, *i.e.*, to write down your directions, giving the hours of the meals, together with the kind and quantity of food, and the mode of preparation.

Although you have all probably seen Smith's tables, still I feel that I cannot do better than give you one in full as a sample, which is called—

Diet 5, for a child about ten months old.

First meal, 7 a.m.—A dessertspoonful of pearl-barley jelly, dissolved in a breakfastcupful of warm milk and sweetened with loaf sugar.

Second meal, 10.30 a.m.—A breakfastcupful of milk, alkalinized, if necessary.

Third meal, 2 p.m.—Yelk of one egg beaten up in a teacupful of milk.

Fourth meal, 5.30 p.m.—Same as first.

Fifth meal.—Same as second.

I have tried this mode of giving written directions in a few cases lately, and although it involves a certain amount of trouble, still the results have been so much more satisfactory than they were under my former habit of giving verbal directions, that I am resolved in the future to pursue this method more than I have in the past.

As you can see, Mr. President, this paper makes no pretence of originality. I have only brought before you known facts concerning the importance of proper feeding of infants, and although these truths may be well known to the profession, they are not known, and are still less appreciated by the general public. There has been considerable improvement during the last few years, as medical men have been showing people the importance of these matters, and I hope the members of the profession will continue with more diligence than ever to practise and teach those rational ideas concerning the correct methods of feeding children which are so well described by many living authors, and by none more ably than Dr. Eustace Smith.

Dr. A. Davidson has been admitted a member of the Royal College of Surgeons, England.

THE SUMMER DISEASES OF INFANTS.

BY J. H. BURNS, M.D.

(Read before the Toronto Medical Society, August 9th.)

The greatest amount of difference has existed among writers regarding the nomenclature and varieties of these diseases. On one hand French authors give no fewer than fourteen different varieties, distinguished from each other according to the portion of the intestinal canal attacked, nature of discharges, &c.; while on the other hand, especially with later writers, and more particularly with English and American observers, it appears to be the aim to describe the varied conditions of infantile summer diseases under a few comprehensive names.

Dr. West, in his Diseases of Children, gives two classifications, viz., simple and inflammatory diarrhœa. Dr. Flint, in his Practice of Medicine, confines the subject to a chapter upon cholera infantum, and makes that caption do service for all; whilst Dr. J. Lewis Smith, whose work on Diseases of Children is at once the most complete text-book in the language for students and reliable guide for physicians practising on this continent, sums up his experience under three or four headings.

Regarding the causes, symptoms, and pathology of the summer complaint, a suitable classification appears to me to be the following:—1st. Simple non-inflammatory diarrhœa. 2nd. Inflammatory diarrhœa, or, according to Smith, intestinal inflammation of infancy, and 3rd Cholera infantum, or choleriform diarrhœa, which may be the disease known in Britain as Watery Gripes.

Before entering into a description of the above classes, it may be well to state that the usual course of unchecked non-inflammatory and choleriform diarrhoea is to become inflammatory.

The chief cause of non-inflammatory diarrhœa is error in diet—either unsuitable food or excessive quantity. It is not necessarily a disease of summer months, but may occur at any time from the presence of indigestible food, or an amount of nourishment taken into the stomach greater than the child is able to digest.

The great majority of children are guarded from the evils of over-feeding by the provision made by nature that any excess is vomited. Those not able to get rid of the surplus in this way are especially liable to disordered action of the bowels. The retained excess over-stimulates and irritates the intestinal follicles. The child's food may also disagree with it owing to the unhealthy condition of its nurse or to colostrum retained in the nurse's milk. Another great cause is cold. Ill-clad children and those unprotected by that most important article of an infant's dress, a flannel abdominal bandage, are especially liable to attacks of this form of diarrhœa. Among other causes are teething, worms, and mental impressions, retrocession of cutaneous eruptions and some particular article of diet disagreeing.

Symptoms vary with the cause. If produced by fright or cold, diarrhoea begins immediately. There may be some constitutional disturbance when improper diet is the cause, such as restlessness, passage of undigested food, tenesmus and flatulence. As the disease advances loss of flesh is noticeable, and a waxy paleness of the face. There is no constantly feverish condition.

I shall not here allude to the anatomical differences found in the three classes of these diseases, but shall hereafter refer to what are considered by pathologists as characteristic appearances.

The form of disease now being described is not dangerous in itself, in fact, at times it may be a means of removing irritants from the intestines. The danger is that if unchecked and if suitable diet, &c. be not given, the disease may become inflammatory. The treatment consists in removing the cause.

If the child is wet-nursed, make sure that the nurse is in good health. If spoon-fed, change the articles of diet until it is discovered which is most suitable. The medical treatment is very simple. If the discharges are acid, as they nearly always are, give an alkali in combination with a mild laxative, and a sedative if necessary. In general an alkaline laxative will be sufficient. If such treatment is not capable of relieving the patient, it will be found that the disease has likely assumed the inflammatory character.

This disease is more common among weakly children than those of more robust constitution,

consequently it may be necessary to begin stimulating early in order to counteract prostration.

The second classification, intestinal inflammation of Smith, inflammatory diarrhœa of West, entero-colitis of Meigs and Bouchut, is the prevalent form of summer complaint and the class to which the large proportion of fatal cases must be credited. This form may develop itself at once, or may be the result of simple diarrhœa or cholera infantum. Its causes are very similar to those of the disease already described, depending upon improper or insufficient food, scant clothing, close, damp, ill-ventilated dwellings, cold and defective sewerage. It may be associated with a malarial poison, and hence is frequently endemic in certain localities. A common cause is changing the child suddenly from a warm to a cold atmosphere, or permitting it to sleep uncovered. Proceeding from the above-mentioned causes,this disease occurs in the country as well as the city, and the premonitory stage is simple diarrhœa. It is in its epidemic form that this complaint is so very fatal in the large cities of America during the hot months from May to September.

Smith says that judging from autopsies he has made, and from information received from others who have been familiar with post mortem examinations, that four-fifths of the cases reported in the city of New York as deaths from cholera infantum in the year 1863 were cases of intestinal inflammation, and except consumption, there is no one disease so prevalent and fatal in that city during its epidemic occurrence in the summer months. The state of the atmosphere most favourable for the development of this inflammation is chiefly found in cities, owing to the high temperature acting upon garbage, sewerage, &c., and where many persons are crowded into small, ill-ventilated, and badly drained tenements. The rapid development of the follicles and crypts of the intestines is a predisposing cause of this affection, as also are dentition and weaning.

The first symptom of this disease is usually slight diarrhœa. Three to five evacuations a day of acid stools, and a greater or less degree of fever. This may continue for a few days when vomiting of undigested particles of food begins. Great prostration ensues. The child from having been restless and fretful becomes emaciated and exhausted, apparently too weak to cry. The features are pinched, the skin hangs in folds from the thick parts of the arms and legs. The pulse in this form of diarrhœa is accelerated and there are exacerbations of fever, sometimes periodical, until, should the disease continue, through general feebleness, the temperature of the body is cool, and the extremities become pallid and cold. The skin is dry, and the urinary secretion diminished in the inflammatory condition. This urinary suppression is a very common symptom. After long continuation the irritating stools produce excoriation of the buttocks and scrotum, and boils break out upon the scalp. In the latter stages the child again becomes uneasy and fretful, and there may be indications of cerebral complication. At length the infant sinks, either quietly from exhaustion, or death is preceded by convulsions, in consequence of uræmic poisoning, or intercurrent bronchitis may supervene and destroy life.

A frequent complication in this form of diarrhœa is thrush, especially in children under the age of four or five months ; occurring in this connection it is generally thought a very unfavourable symptom. The treatment may be considered under two heads : First, regimenal or hygienic, and secondly, medicinal. In children previously healthy, when the attack occurs from exposure to cold, diet should at first be diminished in quantity. If an infant is nursing it should be suckled less frequently, not only on account of the lengthened interval between the times of nursing, but because the milk which remains in the breast becomes more watery and less nutritious. If the child is weaned it should receive an equal reduction in the quantity of its nutriment. Gentle counter-irritation over the abdomen, followed by poultices, or a constant inunction of olive oil, are now indicated. After the acute stage has passed more nourishing food, more frequently administered, is necessary, and this may be supplemented with advantage by alcoholic stimulants. In cases where children, under the age of twelve months,

who are bottle fed, are attacked by this disease, decided advantage may be obtained by procuring a healthy wet nurse. On the other hand a wet-nursed child may suffer from this disorder owing to presence of colostrum in the mother's milk, which may be ascertained by the microscope. In such a case it will be found advisable to change the nurse, or if that is not possible it may be safe to wean the child and begin a diet as nearly as possible approaching that of the natural aliment of a child of this age. Should these changes in diet, in conjunction with proper medicinal remedies, prove ineffectual, one very important measure still remains at our command, that of change of air. Attributable as this complaint is so very largely to atmospheric influences, and prevailing as it does so severely in crowded cities, the best possible results are obtained from removing the patient to an elevated, pure atmosphere. In my own limited experience I have had some opportunity of testing the benefits of such a change. During the summer of 1873 very many infants were brought to Colling wood from Toronto and Hamilton for change of air, many of whom were emaciated to the last degree. Some of these were taken on the boats sailing to Lake Superior, whilst others, apparently dying, were withheld from the long journey, because in their cases death appeared inevitable. Several of these latter were gently carried to the top of the Blue Mountains, which lie four or five miles to the west of that town, and are from 900 to 1,000 feet above the level of the Georgian Bay, and the result was almost magical. The puny, wasted little creatures seemingly began to improve as soon as they had reached the pure clear atmosphere of that elevation. I have had opportunities of observing the result of taking them upon the water also, and although the great change, quickly felt, might deter many physicians from sending delicate children upon those northern waters, yet from the opportunity of observing many such instances, I can speak most favourably of those that have come under my notice.

As one attack of this complaint predisposes to another, it would seem wise counsel to advise the parents of these children to not risk a return to the source of the disease until the heat of summer has passed. The medicinal treatment of inflammatory diarrhœa as to selection of drugs is variety itself.

If called at the early stage it is no doubt a good practice to administer a laxative dose of rhubarb or castor oil, in order to remove undigested or indigestible substances from the intestines, after which preliminary treatment opiates, alkalis, and astringents are indicated, with enemata and external applications. Of the last I would like to notice the good effects I have obtained from anointing with olive oil. The child should have the oil gently rubbed over the stomach and bowels in considerable quantity, after which the abdomen should be supported by a flannel roller. The inunction should be repeated two or three times a day, and I would here suggest the preference which I believe will be found for olive oil over cod-liver oil. The latter, from its generally disgusting odour, is very apt to produce nausea and vomiting—conditions usually complicating these cases, and which are sometimes less easily controlled than the diarrhœa itself.

To recapitulate, it will be seen that the two forms of summer complaint now briefly described are closely allied to each other, they prevail chiefly at the same season of the year: they are, to a considerable degree, dependent upon the same causes, and are in a measure amenable to the same treatment, while the milder complaint not unfrequently passes into the more severe. There yet remains to be described a variety of summer disease which is of the greatest interest to the practitioner in a city, viz., cholera infantum or choleriform diarrhœa, so called because of the violence of its symptoms, which, in that respect, chiefly resembles Asiatic cholera. It is, however, quite distinct in its nature, and is not connected with epidemics of that disease. The term has been commonly applied to the greater portion of the diarrhœal troubles affecting children in the summer months; but cholera infantum has sufficient points of difference to entitle it to be considered as a separate and distinct disease, and the term should only be employed to designate that variety of infantile summer complaint characterised by frequent watery, perhaps serous, stools, accompanied by vomiting

and rapid and great exhaustion. After these symptoms cease to be observed it may be called by any other name more indicative of the pathological condition which has supervened. The succeeding disease is in most cases intestinal inflammation, and should be considered and treated as a distinct affection, just as in the adult when enteritis results from cholera morbus. The term cholera infantum is not employed by English authorities, but there can be no doubt that this affection is just as prevalent and fatal in the large cities of Britain as in those of America, and is described under West's comprehensive classification of inflammatory diarrhœa.

Cholera infantum depends mainly upon uncleanliness, and a residence in a poisoned atmosphere loaded with the gasses of decomposing animal and vegetable matters, and abounds in ill-ventilated and badly-drained houses. It occurs commonly under the age of two years, during the period of the rapid development of the intestinal follicles. It sometimes begins abruptly, the child having had good health previously, and it is not an unusual thing to witness a healthy infant in a few hours brought down to death's door. The only symptoms being one, or perhaps two most copious dejections of watery stools containing perhaps a small quantity of fœcal matter. At other times it is preceded by a premonitory stage of simple diarrhœa, the stools being somewhat increased in number and thinner than usual, when suddenly the evacuations become more frequent and watery, and all the appearances of rapid sinking supervene. Occasionally the antecedent diarrhœa may have continued several weeks, attended with emaciation and intestinal inflammation. The stools are characterised by a peculiar musty odor, not fœcal, but most offensive, and readily detected upon entering the apartment in which the child lies. They are colourless, or produce a mere stain upon the diaper. They may be subsequently very small in quantity and squirted, as it were, from the anus, in which case there is usually more or less tormina and tenesmus. Great irritability of the stomach is another symptom which rapidly increases the prostration and danger. The child rejects everything as soon as swallowed. There is intense thirst; cold water or the breast being taken with avidity. The tongue is moist at first and clean, except occasionally a very light fur. The pulse is accelerated, and respiration is somewhat increased in frequency. The temperature is speedily reduced. I can find no thermometric observations recorded by authors who have described this disease, and have made none myself, but feel that if we could obtain them they would be most interesting. We know from reported cases of sporadic cholera how rapidly the temperature of the body sinks, and how tolerably correct prognoses are arrived at from the average temperature discovered in that disease.

An early symptom is great restlessness, due to the craving for water. The urine is scanty or almost entirely suppressed. The disease is attended with more rapid prostration and emaciation. The child from health and plumpness may in a few hours become a melancholy picture, with eyes sunken and bleared, the eyelids permanently open, and the skin drawn like parchment over the face. A condition of stupor results from which there is no relief, and which after a few hours ends in death.

It will now be well to briefly describe the different anatomical characteristics discovered in the three varieties of this disease, and the distinctions as revealed by post-mortem examination. Billard says that he has observed in the intestines of those who die of non-inflammatory diarrhœa, isolated follicles and follicular plexuses of the intestinal tube in considerable numbers, and developed without being inflamed. The follicles appear at the commencement of dentition. In 12 infants three were aged from eight days to three weeks, two aged two months, and seven from nine to twelve months. Ten of these were affected with diarrhœa of liquid, white mucous matter, which is really the serous diarrhœa of authors; and every symptom leads to the belief, that there is a direct relation between the development of these follicles and the augmentation of their secretion. He does not consider this development of the muciparous follicles as a true inflammation, but the state of excitability which causes the augmentation of their secretion is, as it were, an intermediate

stage between the normal state and the state of inflammation. In these views he is supported by Barrier.

J. Lewis Smith gives an analysis of Post-mortem appearances as found in 82 examinations of deaths from inflammatory diarrhœa as follows :—The upper parts of the small intestines embracing the duodenum and jejunum were found inflamed in 12 cases, free from inflammation and of pale colour in 51 cases. Ileum inflamed in 49 cases, and the cœcal portion, including the ileo-cœcal valve, was the part in which the inflammation was most intense. In 16 cases there was no ilietis.

In most cases the inflamed mucous membrane was perceptibly thickened. Ulcers of small size were found in the mucous membrane in five cases. In one instance these were in the jejunum. In 81 cases there were indications of inflammation in the colon. The solitary glands both of the large and small intestines and Peyer's patches, were involved and thickened in nearly all these cases. He has carefully examined the condition of the liver in every instance, and says that the prevalent belief that this organ is greatly affected in the summer epidemic of intestinal inflammation receives no corroboration from its inspection. He frequently found intussusceptions of the small intestines, which he believes generally occur shortly before death ; and he advances the opinion that if any form of diarrhœa continues more than a week in the summer season, it becomes inflammatory.

After death from cholera infantum, turgescence of the intestinal follicles without inflammation, attended by more or less softening of the mucous membrane, is found. Dr. Hallowell in 1847 says of the anatomical character of the first stage, that it consists of undue development of the follicles both of the stomach and intestines, or one of these organs, without inflammation of the mucous membrane. Dr. Parker writing in 1857 says, when death occurs from exhaustion produced by the profuse diarrhœa and vomiting the walls of the intestines, are found translucent, bloodless, and apparently thin. Those of the stomach are natural. Throughout the whole extent, the solitary and agglomerated glands are very prominent, like beads upon the surface. The weight of evidence thus shows that in cholera infantum post-mortem examinations reveal no inflamed condition.

Its diagnosis is formed by observing the suddenness of the attack, the frequency and character of the stools, their thinness, forcible expulsion, absence of colour, peculiar smell and absence of fœcal matter, the intense vomiting and thirst, rapid sinking and emaciation. During the prevalence of Asiatic cholera, differential diagnosis is nearly impossible. The duration of the attack is short. It either ends fatally very soon, or ceases, or becomes transformed into an inflammation.

The treatment of cholera infantum must necessarily be prompt. If supposed to depend upon the retention of irritants in the stomach or intestines, a laxative is indicated, and the choice seems to lie between the preparations of rhubarb and calomel for this purpose. The latter is most highly extolled by many writers, who believe the liver is at fault. However this may be, from the view now taken of this disease as depending upon excessive heat and vitiated atmosphere, and knowing as we do that every hour is of the utmost importance, valuable time may be lost in waiting for the action of any medicine which may take from two to four hours to produce such an effect. All authors concur in considering opium, in some of its forms, as constituting our main reliance. Dr. Jackson says we have no substitute for it. But how, I would ask, are we to administer this important drug, when the stomach is so irritable that nothing is retained by it? And it is upon this point, Mr. President, that I wish to speak of a method of treatment which, in several instances, I have adopted with marked success ; one which recommended itself to me from its wonderful efficacy in cholera morbus—I mean the hypodermic injection of morphia. The plan I pursue is to combine about one-twentieth of a grain of morphine with one-half grain of quinine and inject, for a child about one year old. The effect of this injection has proved just as beneficial as a similar practice has been in cholera morbus in the adult. The vomiting ceased, as also the diarrhœa, and the child slept quietly for some time after.

The cases in which this method was practised went on satisfactorily to convalescence. It must be remembered that this treatment was adopted in cholera infantum only; and although always successful, it is not unlikely that even after the hypodermic injection certain cases might go on to inflammatory diarrhœa. What is claimed for the treatment is that it averts the stage of collapse, which is so frequent and fatal.

Should the watery discharges continue, Condie speaks most approvingly of the usefulness of acetate of lead in combination with chalk or opium. West recommends the extract of logwood with tincture of catechu. Others depend largely upon oil of turpentine. Smith prefers the combination of bismuth with the compound chalk powder, giving bismuth in large doses. External, slightly counter-irritant applications may be advantageously employed; and enemeta, astringent and sedative, form a usual addition to the treatment. I trust I have produced sufficient evidence to show that well-found reasons exist for establishing such a classification as described; and although all these classes eventuate in inflammation of some portion of the intestinal tube if continued too long, ample proof is given that until that time they are separate and distinct diseases.

In conclusion, Mr. President, I may say that I feel as if an apology were necessary for reading a paper on those diseases with which you and the gentlemen present are so familiar, that no efforts of mine can bring anything new for your observation; but at this season of the year, when bowel complaints in children abound, I shall feel that my endeavour is not considered amiss if it elicit, as I trust it may, a discussion which must be profitable to all of us.

Milk as a Vehicle for Quinine.—If one grain of sulphate of quinine be dissolved in an ounce of milk, we shall find that the bitterness of the draught is hardly perceptible; with two grains there is rather more bitterness, but it is not at all marked—a dose of five grains may be taken in two ounces of milk without any unpleasantly bitter taste, and if the same quantity be put into a tumblerful of milk the bitterness is all but lost.

CLINICAL REMARKS ON CATARACT AT THE TORONTO GENERAL HOSPITAL.

BY R. A. REEVE, B.A., M.D.,
Oculist to the Institution.

(Continued.)

Lamellar Cataract—*Iridectomy.*—This lad, æt. fifteen, was brought by his father a fortnight ago with the statement that when four years old it was found he could just see large letters, and the sight had gradually become worse.

The eyes appeared normal, except that the pupils, which were active, had a gray shade. Right eye, V = $\frac{1}{200}$; left, $\frac{1}{200}$; that is, letters which can be read at two hundred feet by the normal eye could be seen no further than a foot off with the right eye, and six inches with the left. However, on partly closing the eyes and looking askance, V = $\frac{3}{70}$. The case was regarded as lamellar cataract, but in order to enable you to make the diagnosis, the pupils have been dilated.* You now see that the centre of each pupil looks gray and the periphery black; and (in the ophthalmoscopic room), by using the lens alone—oblique or focal illumination—the iris is found to cast a shadow into the lens, showing that its anterior layers are clear. And the eye being lit up with the mirror, the reflex appears as a red ring around a central semi-opaque disc, instead of the whole pupil being uniformly red. The margin (cortex) of the lens is therefore transparent, and the centre cataractous. You can see that the nucleus is not quite opaque, for you get a faint red reflex through it.

Lamellar Cataract with Transparent Periphery.

This is, then, *lamellar* cataract, in which between the transparent cortex and heart of the

* The mydriatic should not be of a strength to paralyze the accommodation, else the sight may appear to be worse than it is, especially if hyperopia is present: sol. atropiæ, gr. $\frac{1}{8}$ ad ℥j, will generally suffice.

nucleus there is a gray zonular lamella, which encases the latter as in a shell of ground-glass, transmitting some light, and therefore not wholly opaque. The less transparent the central parts of the lens, the more dim the sight. With a little manœuvring the optic disc, retinal vessels, &c., can be seen on using both lens and mirror.

You now learn the real nature of the apparent short-sightedness and have the clue to the proper treatment. The patient's sight only permits him to do rough work, but by partly closing his eyes the pupils expand, and a little of the transparent cortex is exposed, when by looking obliquely the sight is for the nonce much improved. Now as the margin of the opacity is well defined, and the lens periphery is clear and not studded with opaque striæ or dots, showing that the cataractous process is at a standstill, the removal of a piece of the iris is indicated; in other words, a small *iridectomy* for *artificial pupil*, so as to uncover in one meridian the clear cortex without going beyond its outer border. This will give permanently the visual acuity got by dilatation of the pupil, the gain in sight far outweighing the slight disfigurement; while mydriasis, which has several drawbacks, cannot very well be kept up always. When the opaque striæ and dots are found reaching to the lens margin and mydriasis does not improve the sight, the affection is likely progressing, and iridectomy is of course contra-indicated. Removal of the lens by needling or linear extraction will then be required. The coloboma (artificial pupil) should be made preferably inwards or in the lower inner segment as the rays of light will then enter the eye most nearly in the line of the visual axis; but if the clear margin is broadest below, the pupil should be made downwards, or downwards and outwards.

As the subjects of this trouble generally try to improve the definition of objects by bringing them unduly close to the eyes or bending the head over them, spasm of the accommodation, and lateral compression of the eyeballs from tension of the recti, are apt to ensue, which early in life frequently produce abnormal depth of the globes, the anatomical condition of myopia or true shortsightedness.

And owing to the excessive tonic contraction of the internal recti, convergent squint may develop; or the physiological visual impulse being wanting, one eye may roll out if the external rectus predominate, or nystagmus (oscillation of the globes) may result. In this instance there is little or no squint, but there is some amblyopia, or defective sight, from functional disuse of the retinæ.

If lamellar cataract be detected at an early age the pupil should be dilated so as to find out the area of the opacity, and the eye examined a few months later to learn if it be increasing; but if there be any sign of developing squint or nystagmus, the pupils should be kept dilated, or an iridectomy done if the degree and nature of the affection are evident. Amblyopia will thus be warded off and the other secondary effects likely prevented. [Florence R., æt. $2\frac{3}{4}$ years: when one year old a "gray spot" was noticed behind the left pupil, and a "cast" appeared soon after. Diagnosis—single, lamellar cataract, the cortex clearest below; secondary convergent strabismus of left eye. Treatment:—small iridectomy downwards and slightly inwards. Ten months later the squint had almost gone.] Lamellar cataract is presumably congenital, though it may not be always so. In the case of the infant, F. G., whom some of you examined lately, the lenticular opacity was seen by the attending physician a week after birth, but in this instance it was single, while, as a rule, it occurs in both eyes. It is found in children who have had convulsions, but possibly both conditions result from the same centric cause; and also in subjects of hereditary syphilitic (strumous?) taint. This lad has "rachitic" teeth, prominent frontal bosses, &c., which are suspicious indications of this diathesis.

In iridectomy for *therapeutic* ends, as in glaucoma, &c., the segment of iris is taken away up to the ciliary border, often a large piece, one-sixth to one-fourth being excised: in that for *artificial pupil*, which is for optical purposes merely, as in this case, the aim is to remove as little of its tissue as will give the best visual result. Hence, the cut in the cornea is made short and a half-line from its margin; the iris forceps being then passed in and a narrow portion of the iris seized near the

pupillary border, and drawn out only so far as to permit the points of the scissors to pass between the forceps and the corneal surface, when it is snipped off. If the iris does not retract it should be freed from the lips of the wound by passing a blunt probe or point of strabismus hook from end to end, and then, if necessary, stroking the cornea lightly with a "spoon" from its margin over the cut. If the lens opacity be small a shaving off the pupillary edge will likely suffice; but if the clear border be narrow a larger piece of iris must be removed. [Two other operations have been suggested and are sometimes done, namely, *iriddesis* and *iridotomy*. In iriddesis the anterior chamber is entered at its periphery by a short oblique cut, and a knuckle of iris is brought out through a loop of thread which has been put into the conjunctiva, the ligature being then tied. By the traction thus made on the iris the portion on the other side of the pupil from the incision is drawn partly over the central opacity and the clear border of the lens exposed on the same side; but this procedure has several drawbacks. In iridotomy one blade of the scissors is passed under the pupillary edge of the iris, which is snipped through; but there is some danger of wounding the lens and making it altogether cataractous. Bowman's plan of pushing a blunt-pointed knife within the pupil and behind the iris, and cutting forwards so as to make a gaping slit is hardly less safe. The method suggested by T. B. Carter, to cut out the pleat of iris that rises between the blades of the iridotomy, when these are laid on its surface, is less risky. On the whole, however, iridectomy done as described is the best operation because the safest and most easy of execution, and the visual result is generally satisfactory.]

Artificial Pupil for Lamellar Cataract.

The operation was done on the left eye September 24th, and on the right, September 28th, a notch being made downwards and inwards about half-way to the periphery, and atropine, which had been used previously, continued for a few days.

November 16th. You can now test the result of the operations, which some of you saw done. The effect of the atropine has quite passed off, and the vision has risen to $\frac{20}{100}$, which is better than we expected.

Pyramidal Cataract.—I have shown you at least two examples of this form; in which there is seen on the centre of the face of the lens a miniature white or pearly cone, which shows plainly in profile. Around the opaque dot the pupil appears black, and the mass of the lens is transparent. The primary cause is perforating ulcer of the cornea or fistula, the contact of the lens with the posterior surface causing localized opacity beneath the capsule; the latter being also drawn out somewhat as the two surfaces separate on the re-forming of the anterior chamber, if adhesion have taken place. In both these cases the nebula from the old ulcer could be seen on the cornea. Operative interference is rarely required.

A white, chalky, or small degenerated lens is sometimes found with excluded pupil, and again with tremulous iris; and in such cases, some of which you have seen, the sight is generally very defective, or lost, not even the lamp-flame being discerned, or part of the field is blind; in such cases there is, as a rule, some disease at the fundus, often of the choroid, and perhaps also detachment of the retina, which would contra-indicate any operation.

Traumatic Cataract.—Traumatic cataract may be due to jostling of the lens from concussion of the eye-ball, or luxation, the malnutrition induced ending in diffuse opacity. This is more apt to occur in mature than young subjects, when the lens has become somewhat firm and its capsule less resilient. It more often results from lesion of the capsule in penetrating wounds of the globe, the aqueous humour rendering the lens tissue turbid. In some instances also, an undetected rent in the capsule occurs without external wound. Once the aqueous humour gets within the capsule, even through a small opening such as is often caused by the prick of a pin, needle, sharp-

pointed tack, or fine spicula of metal or glass, &c., and the whole lens will soon almost inevitably become opaque or cataractous. In very rare instances of violence the opacity is confined to the site of the injury or is quite localized; but it is well in all cases to act on the presumption that it will become general. The following case illustrates some points in regard to cataract due to traumatism.

Sept. 26th. R. F., æt. 21, private patient,* Toronto General Hospital; received charge of blank cartridge in his face at Volunteer review, Montreal, forty-eight hours previously. Cold or ice-water applications had been constantly used. The patient was free from pain, but still suffering from the effects of shock. The left half of the face was closely peppered with powder. Two or three grains were embedded in the sclera of right eye; and others, removed by the friction of the lids, had struck the lower part of the cornea. There was slight ocular congestion and moderate photophobia. The lids of the left eye were swollen, and were with difficulty separated. Several grains had entered the left sclera and cornea, one penetrating the latter. There were, chemosis of ocular conjunctiva, ciliary congestion, discoloration of iris from hyperæmia, and a narrow band of iris (anterior synechia) reaching from outer edge of pupil to the wound at the outer middle third of cornea, the lips of which were infiltrated and ununited; pupil, medium-sized and gray from cataractous lens; tension, below normal; can see large objects to the left. To have atropia, 4 gr. ad. ʒj. instilled every three hours, and the ice-water applications continued. Atropized oil* was used for a few days after removing the powder from the cornea by means of the spud, the aqneous solution being then employed. The right eye showed no signs of irritation from the presence of the particles in the sclera, and required no further attention than the use of cold water for a few days and a few instillations of atropine. The pupil of the left eye yielded but slowly to the mydriatic, June 2nd, being dilated only one-half, with some adhesions to the lens capsule (posterior synechia); the lens being opaque and swollen, but the tension not yet normal (— T); eye moderately congested but free from pain. June 5th. The corneal wound healed; anterior synechia ruptured by mydriatic; pupil two-thirds dilated, and almost circular, the lens-matter protruding through it and almost touching the cornea; tension, normal, having risen the last two days; only slight circumcorneal (ciliary) congestion; no pain or tenderness; can discern when the hand is moved to and fro: did *linear extraction* making the incision in the corneal cicatrix; used cystitome to insure thorough division and retraction of the anterior capsule. The lens substance escaped readily by the curette, and the pupil became pretty clear. The cut was gently cleared of debris, and also the palpebral sac; dropped in some 4 gr. ad ʒ j. sol. atropiæ, and put a light bandage on both eyes: ice-water to be applied; straps to be removed in six hours, and the atropine applied every hour for four hours, and hourly in the morning. June 6th, 9.30 a.m. Eye became painful at 10 p.m., and pil. opii given; not suffering now; general congestion of the eye, more conjunctival than ciliary; lips of wound coapted, and anterior chamber re-formed; pupil only one-third dilated; globe soft (— T¹), but not tender. To apply 8 gr. ad ʒj. sol. atropiæ sulph. every hour during the day, and twice in the night, continue cold water, and give hypodermic of morphia and $\frac{1}{60}$ gr. of atropia at bed-time, or p.r.n. June 7th. No pain or tenderness; pupil one-half dilated and clearer; can see articles about the room; can get up to-morrow; continue cold water, and use the 8 gr. sol. atrop. every two hours. June 10th. Pupil two thirds dilated; V = $\frac{1}{100}$: use 4 gr. ad. ʒj. atropia sol. every three hours. June 12th. V = $\frac{5}{100}$. June 14th. Trifling ocular congestion; pupil well dilated; large, clear central opening encircled by opaque thickened capsule; tension normal (Tn); with + 3 lens

* Seen in consultation with Drs. Thorburn and Bethune.

† The alkaloid itself should be dissolved in hot absolute alcohol, gr. j. ad. minim, and incorporated in pure bland castor oil, the spirit being then expelled by gentle heat: or ether may be used without heat. The atropized oil is superior to the aqueous solution in exposure of the corneal nerves from abrasion or ulceration, and in effecting prolonged contact of the mydriatic with the eye.

V = $\frac{1}{50}$. To maintain dilatation of pupil for several weeks with the atropine.

Preserving the normal central, movable pupil, this patient got useful sight for ordinary purposes, and also for reading, &c., by the use of a cataract glass—a very good result.

The cardinal point in nearly all cases of injury to the eye involving the lens, is to get the maximum dilatation of the pupil at the earliest moment, and keep it up by frequent instillations of a strong mydriatic: so far, the best is sol. atropiæ sulph. gr. 2—8 ad. ℥j. Smearing the brow with extract of belladonnæ, or using fotus belladonnæ, will often be quite futile, *as it also proves in idiopathic iritis.* The above rule is the surest preventive of secondary iritis and worse mischief, and its observance a necessity to a good result. Its neglect will likely end in closed pupil and adherent iris, with a final unsatisfactory visual result, which may indeed be *nil.* The softening lens is an irritant, and therefore the iris should be kept away from it and reduced to the smallest area. The constant use of cold or ice water applications for the first few days is of great service; afterwards hot fomentations may be necessary to relieve pain or ciliary irritation. The *tension* of the eye must often be tested, for undue hardness of the globe is a prime indication for immediate removal of the lens. With this precaution it is well to wait, as in the above case, until the lens becomes softened and flocculent before doing the linear extraction. And this operation may be unnecessary in some cases, *solution* of the lens quietly taking place; or the process begun may be completed by means of needling. In older subjects a dislocated or cataractous lens generally requires early removal by the *modified* (or *peripheral*) *linear* operation.

We lately noted some interesting observations of the occurrence of distinct tubercular formations in voluntary muscles, and now we have to call attention to recent facts which demonstrate that tubercular ulceration of the tongue is met with; rarely it is true, but with a distinctness which suggests that when its occurrence is generally known its rarity may be found to be less than is commonly supposed.

Translations.

From *Rivista Clinica di Bologna.*

The Salicylate of Soda in Diabetes Mellitus.—(*Bozzolo.*)

(*Giornale della R. Accademia di Medicina di Torino, 1878. N.* 1, 2.)

Some observations have already been published, especially in Germany, on the treatment of diabetes mellitus by salicylate of soda. Thus Ebstein tried this remedy in two cases; and in the one saw the glycosuria disappear, and in the other become notably diminished. G. Müller-Warneck also noted in one case the total disappearance of the sugar, and its diminution in another. In both cases, however, things resumed their former condition after the suspension of the remedy. Ryba and Plumbert, in two grave cases, witnessed the absolute disappearance of the sugar; in two other cases a marked diminution, and in another no result. Brinken has asserted that he observed in two cases the permanent disappearance of the sugar. Lastly, in one case Bouchardat did not obtain the least result.

Bozzolo relates the history of a rustic of fifty-eight years, robust, and of healthy descent. He had not suffered from any injury of the head, nor had any bodily disease, and had always lived upon a chiefly amylaceous diet, as residents in rural districts commonly do. In December, 1876, this man commenced to suffer from inappetence, general malaise, intense thirst, and abundant micturition; then debility, virile impotence, emaciation, and lastly, an insatiable appetite. At first he was treated with a flesh diet and lactic acid, but the medical prescription not being attended to regularly, much benefit was not derived. The patient, on entering the Clinica Medica di Torino, was placed for the first few days upon the ordinary diet. At that time the urine varied from 3000 to 3500 cubic centimeters in the twenty-four hours; its density was 1035; the quantity of sugar 57·5 grammes; the weight of the body 48 kilogrammes. We had therefore to do with a rather mild case of saccharine diabetes, in which, probably, grave lesions of the liver had not yet occurred. On the 1st of May, 1877, the patient was subjected to a flesh diet, together with eggs,

butter and alcohol: in consequence of this the sugar notably diminished so that on the twenty-first day it had completely disappeared. Upon a return to a mixed diet the urine increased in quantity up to 2960 c. c. per day, density 1033; sugar 48·6 grammes; weight of the body 51 chilogrammes.

On the 14th of June, along with a mixed diet, we began to administer the salicylate of soda, at first in the dose of 5 and then 10 grammes per day. After eight days this was the result; quantity of urine, 1750 c. c.; density, 1015; sugar, 5·25 grammes, equal to 3 per 1000. The remedy was omitted for a short time, but was afterwards regularly continued from 28th June to 20th July, in the dose of 5 grammes per day, and with a mixed diet. The quantity of urine diminished little by little; the sugar also diminished, so that on the 9th July it had completely disappeared. On the 21st July the remedy was again suspended; and after a few days the sugar reappeared to the amount of 17 grammes, or 11·90 per 1000.

The patient was then subjected to the Thymic acid treatment, from 1 to 3 grammes per day—(Thymic acid, 1 gramme; alcohol, 20 grammes; water, 100 grammes.) This new treatment could only be followed for a short time, and in an imperfect manner, so that we can say nothing of the effects obtained; the quantity of sugar, however, steadily diminished, although but little. * * * Not wishing to draw any absolute pathological or therapeutical conclusion from a single case, the author confines himself to pointing out the fact—a sufficiently satisfactory one—that with the salicylate of soda, and a chiefly amylaceous diet, the quantity of urine and of sugar diminished, and the body weight, the nutrition, the strength, and the general well-being increased.

From *Gazette des Hôpitaux.*

THE CAUTERIZATION OF HÆMORRHOIDS.

For the cauterization of Hæmorrhoids Prof. Richet has for a long time employed special forceps, which he has had made especially for this operation. These large forceps are made of iron, with a broad and flat bite: their form reminds one of that of the irons which ironers use in preparing laces. The forceps are heated red-hot.

During this time, the patient being under chloroform, the surgeon, introducing his finger into the rectum, causes the hæmorrhoidal tumours to project. He passes through their base an iron wire threaded on a strong suture needle, so that by drawing on the wire the hæmorrhoids are kept well out. An iron wire is thus passed in all directions, according to the number and size of the varicose dilatations. An assistant holds the wire and makes each hæmorrhoid as prominent as possible. The surgeon then, seizing the forceps, heated to a red heat, successively crushes each hæmorrhoidal lobule within the bite of the forceps. The cauterization is rapid, and in a few moments the whole hæmorrhoid is completely destroyed, and the iron wire is set free. All the hæmorrhoids are successively cauterized. It will be understood that an iron wire is used to draw out the hæmorrhoid because an ordinary thread would be burnt at the first contact with the fire. To avoid the caloric action on the parts surrounding the anus during the cauterization, it is prudent to place compresses, wet in cold water, all around the anal margin.

M. Richet has employed this process more than two hundred times, and has not met with more than a single accident; and moreover the misfortune in this case is to be attributed to a pneumonia occurring in consequence of a chill on the very day of the operation. This process of cauterization is simple and easy; any one can have forceps of this kind made anywhere, and will be able, to use a happy expression of one of our assistants, to *volatilise* all hæmorrhoids.

From *L'Union Médicale.*

POMADE FOR IMPETIGO.—(BULKLEY.)

Take of oxide of zinc ʒss; and of subnitrate of bismuth ʒss; and of unguentum rosae ʒj. Make a pomade to be spread on lint and applied to the impetiginous pustules. These latter should not be washed, but should be allowed to dry beneath the crusts formed by the exudation and the ointment. It is well not to forget that the pustules require above all to be protected from every source of irritation, and that there is more to be feared from doing too much locally than from doing too little.

THE CANADIAN
Journal of Medical Science,
A Monthly Journal of British and Foreign Medical Science, Criticism, and News.

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending reports of the proceedings of their Associations to the corresponding editor.*

TORONTO, OCTOBER, 1878.

CANADA MEDICAL ASSOCIATION.

The eleventh annual meeting of this association was in point of numbers as successful as former meetings. As many papers, too, as were on the list at Montreal last year were prepared, though as usual the time was too short to read and discuss all. We must again point out to members the great importance of giving timely notice of their intention to read papers, and of the titles thereof, much saving of time and much more profitable discussions would be the result, as members knowing the subjects for discussion beforehand would prepare themselves and say what they had to say in a shorter time and make remarks much more to the point than many do at present. We are glad that it is to be understood that the entertainments that it has been the custom to give, pleasant and enjoyable as they always have been, are discountenanced. More time will thus be available for scientific recreation, and it will be possible to hold our meetings in many of the smaller towns of the Dominion, which hitherto, doubtless through inability to afford the attendant expense, have not been able to have meetings of the association held in their vicinity. It will greatly add, we are sure, to the membership of the Canada Medical Association to visit places throughout the Dominion where there are many physicians who up to this time have taken no part in its proceedings. A change is necessary in the by-laws of the association as regards the various committees. We are of the opinion that it would be more profitable if, instead of reports on medicine, surgery, and midwifery, &c., certain subjects were chosen in each department, and a discussion thereon opened by some one previously appointed. Carefully prepared and able as were the reports this year, each was after all but little more than resumé of the original communications to our journals during the year. If everyone were to keep an accurate record of the cases coming under his observation, and as they accumulate analyze them carefully, much valuable experience (at present lost to the profession), from which useful deductions might be drawn, would be turned to good account. The membership fee should be raised sufficiently, to cover the expense of publishing the transactions, as at present the sum is so small that papers are not likely to be published unless by the liberal subscriptions of a few of the wealthier members. We are strongly of the opinion that the transactions should be published every year as this will greatly tend to improve the character of the papers prepared.

COLONIAL DEGREES.

The editor of the London *Lancet*, in a reply to a correspondent, signing himself *M.R.C.S., London and Foreign M.D.*, writes as follows in the issue of August 24th: "The collapse of medical legislation this year renders it wise to postpone the questions raised in our correspondent's letter. It will, of course, be the most urgent duty of the Medical Council, in the event of a Bill passing requiring the recognition of Foreign and Colonial degrees, to investigate most carefully the character of the examinations required for obtaining any given degree, and to refuse recognition to any degrees granted after such an absurdly defective education and examination as are described by our correspondent in the case of some so-called Canadian Medical Schools." We had only last month to refer to the ignorance of English writers when referring to Canadian affairs. What a pity they don't try to be better informed as to "so-called Canadian Medical Schools." Statistical tables of pass and pluck at the Royal College of Surgeons show that our schools are in advance of many English institutions. Whoever has given the editor of the London *Lancet* reason to suppose

that the education and examination of any Canadian Medical School is "absurdly defective" is either misinformed or has wilfully written untruths. We are satisfied that he cannot be a Canadian. Dr. Storrar, at the last meeting of the Medical Council of Great Britain, spoke in most flattering terms of the degrees of the University of Toronto, and we ourselves heard Mr. Callender, of St. Bartholomew's Hospital, and at that time examiner at the Royal College of Physicians London, encourage a timid candidate by the remark that "*Canadians always get through.*"

Dinner given by the Hamilton Medical and Surgical Association to the Members of the Canada Medical Association.—After the close of the meeting of the Canada Medical Association the Hamilton Medical and Surgical Association entertained the members at a sumptuous dinner in the Royal Hotel on the evening of Sept. 11th. Dr. Macdonald, the President, occupied the chair, and Dr. Mullin, the Vice-chair. Among the guests were Mr. Kilvert, the Mayor of Hamilton; and Hon. F. Leland, U. S. Consul. A very large proportion of those who are mentioned elsewhere as having been present at the Association attended the dinner, which was all that the most fastidious epicure could desire. The usual loyal and patriotic toasts were drunk and suitably responded to. Drs. McCargow and Powell favoured the company with some capital songs. The company separated about half-past twelve, having thoroughly enjoyed the hospitality of the profession in Hamilton.

Canada Medical Association. Entertainment by Dr. and Mrs. Macdonald, of Hamilton.—On Wednesday evening, Sept. 11th, Dr. and Mrs. Macdonald entertained the members of the Canada Medical Association at their hospitable home on Duke Street. In spite of the wet weather a large number were present, and spent a very pleasant evening. The party broke up at a late hour, after partaking of a substantial supper. The courteous and cordial efforts of the host and hostess rendered the evening exceedingly agreeable.

CANADIAN VINE GROWERS' ASSOCIATION.

The well-known firm of Cramp, Torrance & Co., of this city, have become proprietors of the business of the Canada Vine Growers' Association of Cooksville. This association has recently been reorganized, and, according to the reports of experienced analysts, such as Prof. Croft, of Toronto University, and Prof. Ellis, of the School of Practical Science, manufacture wines and brandies, perfectly pure, as far as chemical tests can prove them so. Prof. Croft says, "The wines are in my opinion, most excellent, equal to many of the best wines of France." "The brandies, also seem, as far as my judgment goes, to be of the most excellent quality, the finer ones quite equal to any of the best French brandies."

Mr. James White, the representative of Cramp, Torrance & Co., has shown us commendatory letters from several physicians of this city who have received samples of the wines. Mr. White intends shortly to make an extended tour throughout Canada, and hopes to secure the approval of the profession and a large patronage from the general public. Samples of the wines Sauterne, Savigny, Vin de Porto, and Madeira were exhibited at the meeting of the Canada Medical Association in Hamilton, and highly approved of by many of those present. The stock now offered, four years old, was made at Cooksville, from the Clair House Vineyards, where there are over seventy acres producing the various kinds of grapes used. The wine of the Canada Vine Growers' Association was awarded a Medal at the Paris Exhibition in 1867, and also in 1876, at the Centennial Exposition at Philadelphia. For patients requiring mildly stimulating wines these appear to be well adapted.

Toronto School of Medicine.—Owing to the rapid increase of the numbers of students attending this school, the faculty have been obliged to provide greater accommodation by the erection of a new lecture-room. The old lecture-room forms the new dissecting-room, and the whole building will be thoroughly renovated. These alterations will make the Toronto School of Medicine building second to none in every comfort and convenience. (See advt.)

WYETH & BROS'. EXHIBIT AT THE CANADA MEDICAL ASSOCIATION.—During the meeting at Hamilton, Mr. E. Muir, of the firm of Perry Davis & Son & Lawrence, Montreal, had on exhibition samples of many of the preparations of Messrs. John Wyeth & Bros., Philadelphia. We have previously referred to these elegant pharmaceutical preparations which seem to lose none of their popularity. They are prepared specially for the use of physicians and not for sale to the general public. Wyeth's Dialysed Iron is, according to analysis, the most reliable preparation of the kind sold. Their elixirs are the most palatable we have used and make even the most nauseous of our drugs almost pleasant. There was also shown the paper fibre lint made by Parker & Son, of New Haven. It is much cheaper than patent lint and it is claimed that it is an efficient substitute, being used in many of the large hospitals in the States.

WILLIAM WARNER & CO. AT THE PARIS EXPOSITION.—By a cable telegram it has been announced that an award of the highest prize for Wm. R. Warner & Co.'s, sugar-coated pills has been given by the judges at the Paris Exposition. This makes the 5th Grand Prize awarded for their superiority over all competitors to the well-known Philadelphia firm of manufacturing druggists. We congratulate them on their well-merited success, which is clearly due to the excellence of their goods.

OBITUARY.—We regret to have to announce the death of Dr. Washington L. Atlee, of Philadelphia, in his 71st year. He was well known as one of the most successful ovariotomists in America, having operated in more than three hundred cases.

CANADIAN ABROAD.—By an Imperial irade his majesty, the sultan, has conferred the 4th class of the order of Mejidié on several surgeons who served in the late war. The name of Dr. Kirkpatrick of Canada appears among the number.

Dr. Eason Wilkinson, President of the British Medical Association for 1877-78, died on July 26th.

Book Notices.

Tubercular Laryngitis. By WM. PORTER, M.D., St. Louis.

Post-Nasal Catarrh. By WILLIAM PORTER, M.D., St. Louis.

Bibliotheca Medica. ROBERT CLARKE & CO., Cincinnati, U.S.

Boston University School of Medicine, Sixth Annual Announcement and Catalogue, June, 1878.

Transactions of the Medical and Chirurgical Faculty of the State of Maryland, 80th Annual Session, 1878.

On the Nature and Pathological Histology of Psoriasis. By A. R. ROBINSON, M.B., L.R.C.P.S., Edin. New York, 1878.

Report of the Resident Physician at Brigham Hall, a Hospital for the Insane, for the year 1877. Canandaigua, N.Y., 1878.

Treatment of Strumous Disease, by the Solfatara Method. By HORATIO R. STORER, M.D., Newport, R.I., Cambridge, 1878.

The Treatment of the Genita-Urinary Organs, The Use of Electricity, Damiana, &c. By John J. Caldwell, M.D., Baltimore.

The Pocket Therapeutist and Dose Book. By Morse Stewart, jun., B.A., M.D. Detroit: Emil Schobar, Printer, 1878.

Involuntary Action of the Nervous System. By John J. Caldwell, M.D., Baltimore. Read before the American Dental Convention, Aug. 17th, 1877.

Medico-Legal Evidence, relating to the Detection of Human Blood, presenting the alterations characteristic of Malarial Fever. By JOSEPH JONES, M.D., New Orleans.

A Case of Cleft Palate with Acquired Deaf-muteism; Staphyloraphy. Recovery. By Adolph Alt, Toronto; New York: Wm. Wood & Co.

Battey's Operation.—Three Fatal Cases, with some Remarks upon the Indications for the Operation. By George J. Englemann, M.D., of St. Louis, Mo.; New York: Wm. Wood & Co.

Address Delivered before the American Medical Association, at its 29th Annual Session, held at Buffalo, June 4th to 7th, 1878. By T. G. Richardson, M.D., of New Orleans, President of the Association.

A Case of Endothelioma of the Intervaginal Space of the Optic Nerve—Removal with Attempt to Preserve the Eyeball—Subsequent Enucleation on Account of Uncontrollable Hæmorrhage—Remarks. By Dr. Adolph Alt, Toronto; New York: Wm. Wood & Co.

Scrofula.—Dr. T. C. Albutt said he had long discarded scrofula as a misleading term. He had taught for fifteen years that a scrofulous patient was simply a bad healer, one in whom light lesions were not easily thrown off and forgotten. The so-called scrofulous neck, long regarded as the expression of a special systemic vice, probably always took its rise as a bubo from some irritation of mucous membrane in the throat or ear. Mr. Teale and himself had treated several of these cases most successfully by free incision and enucleation. In some cases, this had been before the constitution had given way, and in these the results were brilliant. It was found that under the larger glands often lay lesser ones, these in turn leading to some deep-seated, perhaps half cretified "kernel," the unnoted offspring of some long forgotten tonsillar or other irritation.

Carbolic Acid Poisoning.—Dr. Senftleben recommends sulphuric acid as an antidote; it produces sulpho-carbolic acid, which is innocuous. R. Acid sulph. dil, 1 part; gum water, 200 parts; syrup, 30 parts. One tablespoonful to be taken every hour.

Meetings of Medical Societies.

CANADA MEDICAL ASSOCIATION.

ELEVENTH ANNUAL MEETING.

The eleventh annual meeting of the Canada Medical Association was opened on September 11th at Hamilton, when there was a large representation present. The President, Dr. Workman, Toronto, occupied the chair, and beside him were Drs. Macdonald, Hamilton, Vice-President for Ontario; Botsford, St. John, and Brodie, Detroit, the latter gentleman coming as the representative of the American Medical Association.

The following members were in attendance:—Drs. Thomas Pyne, Charles W. Covernton, Toronto; A. G. David, Montreal; A. E. Malloch, Hamilton; Joseph Workman, Toronto; J. D. Macdonald, T. S. Covernton, Hamilton; A. Alt, Toronto; S. B. Botsford, St. John; Wm. Canniff, Toronto; Wm. A. Mullin, Hamilton; James Kerr, Londonderry, N.S.; Henry T. Ridley, Charles F. A. Locke, Hamilton; B. H. Lemon, Thorold; James Stuart, Brucefield; George M. Shaw, Hamilton; A. H. Wright, R. B. Nevitt, Toronto; J. M. Wallace, Hamilton; L. McFarlane, Toronto; James White, Hamilton; N. E. Mainwaring, St. George; Jas. Leslie, W. L. Bullen, T. H. Wilson, Hamilton; A. T. Fraser, Sarnia; Robert A. Pyne, Toronto; F. Burt, Paris; Albert Senkler, Toronto; R. M. Bucke, London; A. Woolverton, Hamilton; I. H. Cameron, Toronto; Edward O'Neil, G. L. McKelcan, Hamilton; E. Robillard, Montreal; R. Zimmerman, Toronto; I. Ryall, Hamilton; W. Philp, Waterdown; W. Oldright, Toronto; T. Mack, St. Catharines; E. N. Brush, Utica, N.Y.; T. W. Mills, Hamilton; J. A. Temple, Daniel Clark, Toronto; John M. Fraser, London; H. Orton, Ancaster; J. Fulton, Toronto; D. McLaren, Paisley; John S. Bray, Chatham; A. McKay, Ingersoll; H. M. McKay, Woodstock; H. H. Scott, Ingersoll; J. T. Moore, Tilsonburg; Thomas Bowers, Ingersoll; T. M. Burgess, London; A. A. Riddell, Toronto; Robert J. Colenso, London, Eng.; Thomas White, Thomas Miller, Hamilton.

NEW MEMBERS.

The following were elected during the meet-

ing :—Drs. L. McFarlane, R. B. Nevitt, A. H. Wright, Toronto ; James White, Hamilton ; F. Burt, Paris, Ont. ; R. A. Pyne, A. E. Senkler, Toronto ; Titus Crooker, A. Woolverton, Geo. Mackelcan, C. F. Bullen, George Shaw, Ryall, C. F. A. Lock, Thomas White, W. Miller, E. O'Neil, J. H. Wilson, Hamilton ; R. M. Bucke, London ; J. M. Wallace, Hamilton ; B. H. Lemon, Thorold ; J. Stewart, Brucefield ; W. L. Billings, J. Leslie, T. W. Mills, Hamilton ; R. J. Colenso, Visiting Member from England ; A. S. Fraser, Sarnia ; N. E. Mainwaring, St. George ; Dr. McCallum, Dunville ; Dr. Clark, Paris ; Beemer, London ; Burnett, Peterboro' ; Dr. Kittson, Dr. Reid, Hamilton ; McCargow, Caledonia ; Powell, Ottawa ; Dr. Read, District Asylum West Pennsylvania ; O'Reilly, Paris ; O'Reilly, Toronto ; Drs. Harrison Selkirk, Stark, Hamilton.

After routine business, the chairmen of the following committees reported :—Surgery, Dr. Malloch ; medicine, Dr. Mullin ; medical literature, Dr. Ridley ; climatology, Dr. Playter ; necrology, Dr. Riddell. These reports, with the President's address, and the various papers were referred to the Publication Committee, and will, we hope, be published. The President's address was listened to with great attention and called forth frequent applause. During the second day's session, Dr. Brush of the Utica Asylum, N.Y., exhibited some beautifully prepared sections of the brain, showing various pathological conditions. Dr. Roddick of Montreal gave a demonstration of Lister's antiseptic dressing.

The following are the officers elected for the ensuing year :—

For President—Dr. Macdonald, of Hamilton.

General Secretary—Dr. David, of Montreal.

Treasurer—Dr. Robillard, of Montreal.

Vice-Presidents, Ont.—Dr. Bucke, of London.

Quebec—Dr. Howard, of Montreal.

Nova Scotia—Dr. Kerr, of Londonderry, N. S.

New Brunswick—Dr. George Hamilton, of St. John, N. B.

Committee of Arrangements—Drs. Bucke, Fraser, Stevenson, Payne and Cattermole.

Committee of Publication—Drs. Osler, F. W. Campbell and Fenwick.

Committee on Medicine—Drs. I. H. Cameron, Toronto ; George Ross, Montreal, and R. Zimmerman, Toronto.

Committee on Surgery—Drs. Canniff and McFarlane, Toronto, and Roddick, Montreal.

Committee on Obstetrics—Dr. McCallum, Montreal ; Dr. Fraser, London ; and Dr. Robillard, Montreal.

Committee on Therapeutics—Dr. Parker, Halifax ; Dr. Kollmyer, Montreal ; and Dr. Fraser, Sarnia.

Committee on Medical Education—Drs. C. Covernton, Workman, and Marsden.

Committee on Climatology.—Drs. Botsford, Larocque, Kerr, and Oldright.

Committee on Ethics—Drs. Howard, McDonald, Hingston, Robillard, Parker, Grant, Botsford, Marsden, Bucke, and Clark.

On motion it was decided that London, Ont., should be the next place of meeting, and that the time should be the first Wednesday in September, 1879.

The following papers were read and discussed :—

1. Double Synchronous Amputation of Thighs.—Dr. Bray, Chatham.
2. Joint Disease.—Dr. Hingston, Montreal.
3. The Functions of Ophthalmoscopy.—Dr. Reeve, Toronto.
4. Cheyne-Stoke's Respiration.—Dr. Zimmerman, Toronto.
5. Extra Uterine Pregnancy.—Dr. Kerr, Londonderry, N.S.
6. Removal of Retained Secundines.—Dr. Howard, Montreal.
7. Diseases of the Eye in Relation to General Diseases.—Dr. Alt, Toronto.
8. Displacements of Uterus—Dysmenorrhœa and Sterility.—Dr. Rosebrugh, Hamilton.
9. Indications for Enucleation of the Eyeball.—Dr. Rosebrugh, Toronto.
10. Medical Testimony.—Dr. D. Clark, Toronto.
11. Diphtheria.—Dr. Canniff, Toronto.

PAPERS ON

12. Aphasia.—By Dr. Freeman, Milton ;
13. Posology.—By Dr. Kollmyer, Montreal ;
14. Rotation of the Fœtal Head from Occiput Posterior.—By Dr. Ross, Toronto ;
15. Cheiloplastic Operations.—By Dr. Oldright, Toronto ;

were read by title, there not being time to get through the list. Dr. Roddick, of Montreal, read a paper on Listerism, and gave the details of several cases treated antiseptically.

Miscellaneous.

Vomiting of Pregnancy.—Tannin in one and a-half grain doses, morning and evening, has been recommended as efficient.

Cracked Nipple.—Immediately after the child has sucked, acacia powder should be thoroughly dusted over the surface.

Oxyuris Vermicularis.—Inject hot tar soap suds, followed by weak solutions of sulphate of zinc.

Dr. W. E. Bullard reports a case of anæmia from hœmatemesis cured by intravenous injection of milk.

Dr. Crawford W. Long, of Athens, Georgia, the discoverer of modern surgical anæsthesia, died on June 15th, 1878, aged 63.

Acute Atrophy of the Liver in an Infant.—Senator reports a case occurring in a child 8 months old.

Bartholow points out that bromine acne may in part at least be prevented by the conjoint administration of Fowler's solution in doses of 3 to 5 minims thrice daily.

Sciatica.—Ether hypodermically behind the great trochanter in doses of from 15 to 30 drops is said to cure some obstinate cases of sciatica.

Ununited Fractures.—Mr. Fitzgerald, of Australia, strongly advocates the injection of glacial acetic acid, 5 to 10 minims, between the ununited ends of the bones.

High Temperature.—Mr. Seale, of Scarborough, brought before the Clinical Society of London a case in which the temperature reached 122F., and yet the patient recovered.

Gonorrhœal Testis.—First apply a layer of carded cotton, and then over this some caoutchouc cloth, the parts being supported by a suitable suspensory. The scrotum may be painted with iodine first.

Necrology.—We learn of the death, at Toulouse, of Dr. Foville, formerly physician-in-chief of the Asylum of St. Yon, at Rouen, and of the *Maison de Chareuton.* During his *internat* at *la* Salpêtrière, where he served under Pariset, Rostan, Terrus, and Esquirol, he published important works upon the structure and functions of the nervous system, and notably upon cerebral localizations. In 1825, on the recommendation of Esquirol, he was appointed physician-in-chief of the newly-instituted Asylum of St. Yon, at Rouen. In 1833 his failing health obliged him to resign, and for some years he travelled as medical adviser to the Prince *de Joinville*, and took part in scientific excursions in Africa and America. In 1840, on the death of Esquirol, he was appointed physician-in-chief of Charenton. In 1844 he published a volume and an atlas on the anatomy of the brain. Dr. Foville leaves three sons, of whom two are brilliant pupils in the Polytechnic school, and the third, Dr. Achille Foville, now physician-in-chief to the Asylum of *Quatre-Maries*, at Rouen, is already known for his very remarkable and justly esteemed works upon mental diseases, and bears most worthily his father's name. Dr. Bouneau, formerly *Médecin des Hôpitaux de Paris*, died on the 1st of July last, aged 87. He was of the Seniors amongst French physicians, and one of the last survivors of that great generation which has produced so many distinguished men. Honours were not wanting in his career: physician for 30 years to the Hospital of *l'Enfant-Jésus.* one of the Inspectors of the Paris Asylums; he was remarkable for a courageous devotion during all epidemics, notably during the cholera of 1849, and was rewarded therefor by the decoration of the *Legion d' Honneur.*

Births, Marriages, and Deaths.

BIRTHS.

At Toronto, on August 26th, the wife of E. W. Spragge of a son.

MARRIAGES.

On September 18th, at Beamsville, Dr. J. T. Gilmour, of Kettleby, to Emma, third daughter of Mr. Morgan Hawkins, of Canton, Ont.

On September 18th, at Toronto, Daniel McKenzie, to Alice Maud Mary, daughter of the late Dr. Buchanan, of Toronto.

At Toronto, on September 17th, W. Britton, M.D., to Mina, second daughter of F. A. Moore, Esq.

At Toronto, on September 12th, Beresford T. Gahan, M.D., M.C.P.S., Ont., to Fanny Gray, second daughter of the late Wm. Strike, Esq., Co. Waterford, Ireland.

DEATHS.

At Uxbridge, on the 26th inst., at the residence of his son-in-law, J. Bascom, M.D., of paralysis, Benjamin Workman, M.D., formerly of Toronto and Montreal, aged 83 years and 11 months.

THE

Canadian Journal of Medical Science.

A MONTHLY JOURNAL OF BRITISH AND FOREIGN MEDICAL SCIENCE, CRITICISM, AND NEWS.

U. OGDEN, M.D., *EDITOR.*

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TORONTO, NOVEMBER, 1878.

Selections: Medicine.

THROMBOSIS OF ONE OF THE CORONARY ARTERIES OF THE HEART DIAGNOSED DURING LIFE.

BY DR. A. HAMMER, St. Louis.

Translated from *Gazetta Medica Italiana* by Joseph Workman, M.D., Toronto.

All the pathological alterations which are met with in the entire arterial system, as endocarditis, atheroma, aneurisms and stenoses, calcifications, ossifications, thromboses, whether arising spontaneously or from embolisms, with invariably consecutive formation of infarctions, abscesses, &c., &c., have been already often observed in necroscopies of the heart. Not, however, during life, has there yet been diagnosed or described a thrombosis of one or both of the coronary arteries.

As, then, I have made this diagnosis, I may venture to treat of the subject as an original fact, since I have never yet read of it or even heard it spoken of. Having, however, had doubts whether the affection was a newly discovered malady, I re-examined all the books within my reach in which diseases of the heart are treated of. In none did I find any description of such an affection. I consulted all the more recent periodic literature of medicine, so far as available, but without meeting with anything relating to the subject. I might therefore, without self-dissatisfaction, have ventured to publish the present case as one really new, but a certain disinclination to write (commonly called laziness) restrained me; and then again sprang up afresh the doubt that already similar cases might have been published, so that I might be found in the rather unpleasant situation of augmenting the number of those illusionists who have believed that they have discovered new things, which were, nevertheless, already well known.

Because of the great interest with which I regarded the case, I made mention of it in the German Medical Society of New York, prior to my departure thence, in the spring of 1877. This intimation was quite unfruitful, and even the most learned Dr. Jacobi, who might well be called a walking dictionary of medicine, knew nothing of the disease. On my arrival on this continent I conferred with various illustrious clinics, among whom were Kussmaul of Strasbourg and Bamberger of Vienna: none of them could afford me the information sought for. They all said they never had observed, nor ever had read of, a similar case. For these reasons, as well as because many of those t whom I had mentioned the case urged me to keep it no longer unpublished, I have written the following details:—

On the 4th of May, 1876, at nine in the morning, my young friend and colleague, Dr. Wichman, came to ask me to visit with him a patient on whose condition, he said, he was unable to come to any decision. Of the course and character of the disease he gave me the following relation:—

The patient, Jacob Schreier, a merchant, aged 34, married, of robust constitution, habitually a free beer-drinker, had suffered for a year past repeated attacks of articular rheumatism; no alterations in the valves of the heart could ever be detected. Four weeks ago he had an acute return, which invaded simul-

taneously various articulations. Improvement proceeded tardily, and in a few days convalescence set in: the pulse 80 per minute. Yesterday (3rd May) the patient would, regardless of admonition, get out of bed a little before midday. He sat on a settee, and an hour after rising he fell suddenly into a state of collapse. Half-an-hour afterwards Dr. Wichman arrived; he found the pulse feeble, 40 per minute, the lips livid, a little cyanotic, some dyspnœa, but no pain. At first Dr. Wichman believed the collapse had resulted from an instantaneous and copious effusion into the pericardium, but he subsequently abandoned this opinion. At six p.m., there was nothing new, but the pulse was less frequent, 23 per minute. At ten the same night the pulse had gone down to 16, otherwise there was no change.

Present state.—I found the patient as follows:—The body stretched horizontally on the bed with the trunk a little elevated, the hands on the coverlet, the pulse only 8 per minute (being only half of that noted at 10 last night); it was rhythmical, that is, it gave one beat every 8 seconds. The face and the skin of the whole body, pallid, cool, and covered with a viscous sweat; the eyes limpid, the pupils of half size, promptly reacting to light; over the lips, a lightly cyanotic colour; the tongue and the lining of the mouth and pharynx, pale and anæmic; no dyspnœa, no sputa, no cough, and no pain in any part of the body; the respiration counted 24 to the minute; the mind was perfectly free. The patient, whether by his posture, or by his aspect and conversation, gave us the impression that he had no just conception of the gravity of his condition.

Physical examination.—From percussion of the region of the heart no abnormal dulness was perceived: the circumference of the heart, and its size, could without difficulty be ascertained on the thorax, just as if its position was quite normal. Percussion of the lungs, in like manner, gave no dulness, in consideration of which I was constrained to exclude from the diagnosis pleural effusion, pulmonic, and every other infiltration. Auscultation of the lungs gave, over all, the normal respiratory murmur, mingled only here and there with rales and ittle bubblings, as we are wont to meet with them when the lungs are in a state of pronounced hyperæmia. Auscultation of the heart, on the contrary, gave phenomena rather strange. To the systolic and diastolic valvular tones, weak indeed, but clearly distinguishable, there followed immediately a clonic spasm of the heart, which manifested to the ear placed over it a fremitus, which persisted for five seconds, with equal force, exactly, and then ceased completely.

The convulsive contractions of the muscle of the heart followed each other with such rapidity that they could not be better compared than to the tremors of the hand in a man labouring under *delirium tremens*. To the sudden cessation of the cardiac spasm, there followed two seconds of absolute rest, then a normal contraction (one second), a cardiac spasm (five seconds), a pause, and so on, in series. I continued the auscultation fully 20 minutes, and never succeeded in detecting the least deviation from the precision and regularity of the above-mentioned series of phenomena as already stated, neither systolic nor diastolic murmur was perceived. Examination of the intestines gave a negative result, and so did that of the neck. With this closed the physical exploration.

But from all these marvellous phenomena, what conclusion? What pathological process could I construct, or imagine, from such facts? How, finally, could they be explained? I confess that at the outset I found myself perplexed; but presently I sought to disembarrass myself by a process of exclusive reasoning. I would not admit disturbance of innervation, consequently this datum was unavailable. The sensorium was completely free,—I might say unusually clear, so that I had no right to admit that in this there was any alteration capable of producing disturbance in the functionality of the nerves. Along the peripheral course of the nerves, in the region of the neck, I found nothing which could support this supposition. The symptoms of our case did not square with fatty or relaxed heart. The result of the physical examination was too evidently opposed to this belief to give validity to other reasons. Besides, the symptoms of these two affections of the heart are by no means constant, but vary so much that the

opinions of the majority of authors are very diverse, and some even deny altogether that any diagnostic reliance should be placed in them.

Infectional diseases must from the very outset be excluded, for all their respective constant symptoms were absent. Abnormal conditions from pressure could not be the object of my search, since they manifestly did not exist: the percussion and auscultation of the heart and thorax proved this fact.

Other affections of the heart, as, myocarditis, endocarditis, hypertrophy, atrophy, valvular alterations, must certainly be excluded, alike because of the negative auscultatory result, and the deficiency of other symptoms pathognomonic of such affections. What, then, remained to me? Absolutely nothing, or at least nothing as yet known. In this embarrassment I fortunately recalled that which happened to a certain preacher, whose better arguments came to him only after entering the pulpit.

Above all, the sudden and persistently increasing collapse surprised me. I reasoned thus:—What, unless a disturbance of nutrition of the heart, or, better yet, a cutting off of its sanguinous irrigation, with the consequent abstraction of its nutrient material, could explain the phenomena of the case, and must not such an impeded afflux have its origin in the occlusion of, at the least, one of the coronary arteries? At a loss for supports of any other adequate explanation, I assumed, I might say intuitively, this hypothesis:—

After a little reflection I judged that only one coronary artery was obstructed; corroborative of this belief was the fact that the collapse advanced progressively and relatively slowly. If, on the contrary, both arteries had been occluded, the action of the heart must have more speedily relaxed and its action must sooner have ceased. A still stronger proof of the unilaterality of the affection was the cardiac spasm, regularly recurrent and tumultuous, and lasting each time 5 seconds. If it be considered that one-half of the heart required 8 seconds of rest, to enable it to become innervated afresh, and to give a new contraction, whilst the other half was functioning normally, we may readily conceive that the sound half, intimately connected with the affected one, could not execute rhythmical movements. We are forced to regard the affected part as an actually inert mass which, during the efforts of the other, became shaken and agitated, as a mere structural appendix.

These reflections confirmed in my mind the idea that the thrombus was seated solely in one coronary artery; but whether it was situate on the right or the left side, I was unable to decide.

I exposed immediately my opinion to my colleague, who, with a face expressive of bewildered compassion, thus broke out: "Such a diagnosis I never in my life have heard;" to which I replied, "Neither have I," ("*e neppur io.*") He was at first unable to achieve tranquillity, and he made the impression on me that he believed that I had sought to conceal my embarrassment by the utterance of a frivolous witticism. I had something to do to persuade him that what I had said was spoken with entire seriousness. I then enumerated to him the preceding particulars in development of my diagnosis, and I assured him I not merely believed in its probability, but I was convinced of its actuality. I then said to him that the case was equally interesting to both of us, and that for my own part I desired nothing more ardently than to be undeceived if I had been in error; and as the patient could not live more than a few hours longer, we might arrive at the coveted certainty in the necropsy. Let the best be done to obtain this permission from the family. (This requirement becomes necessary when it is considered that in America, even in this day, the greatest difficulty is encountered in obtaining permission for an autopsy. How many times have I bought this privilege by giving up my fees! In some cases, indeed, I had to supplement this by cash from my own pocket. This would seem to be the panacea for all tender scruples, the most subtile, and even sometimes those of the Church!)

The patient survived 19 hours, and died on the morning of 5th May. Dr. Wichman received permission to examine the body, but within narrow limits. He might only extract the heart, and all the other organs must be untouched. For our object this sufficed, and we thought ourselves very lucky in having secured so much.

On 6th May, 29 hours after death, at 11 a.m.,

whilst the body now lay clothed in the coffin, we proceeded with our partial necroscopy.

The sternum being elevated so far as to enable us to see and detach the heart, the anterior margins of both lungs came into view, emerging from their costal encasement towards the mediastinum, puffed, outstretched, and of a dark hue (undoubtedly because of the high degree of hyperæmia and œdema). The external surface of the pericardium showed nothing abnormal: in its cavity it had about half an ounce of limpid yellowish serum; its walls were smooth and lucid. The heart was normally situate, of normal size and form; on its surface, besides a copious layer of fat, in the coronary and longitudinal sulcus, nothing was observed,—not a trace of stain, of exuded deposit, or of interstitial exudation.

Having removed the heart we passed to its internal inspection. The right auricle and ventricle were filled with coagulated blood, dense and dark, holding copious fibrinous coagula and vegetations of globulous form, (most probably developed in the final agony). The capacity of the auricle and ventricle was of normal size; the tricuspid and semilunar valves were intact; the colour of the cut surface was pale, with a brownish yellow tint; the wall of the ventricle was of normal thickness, and the endocardium was unaltered.

The details given above as to the auricle and ventricle of the right side, are equally valid as to those of the left, but not as regards the semilunar valves of the aorta. In this we found most singular alterations, which could be readily seen by looking from above, through the canal of the aorta.

With the view of observing these more closely we divided the aorta, conducting the cut across the commissure of the right and left valves, a process which we afterwards found most suitable, since had we made the cut as usually defined across the posterior and right valves, we should have destroyed a great part of the anatomical marks, and thus to a certainty the evidence of the entire pathological process, and its origin and ulterior development, would have been obliterated.

That which more desirably resulted was the tension of the completely displayed right valve in the midst of a mass which not only filled the right sinus of valsalva, but further overlaid one-half the themisphere. Extracting this, with all possible caution, and examining it very closely, I found that its superior strata as far down as the origin of the coronary artery, within the precinct of the sinus, consisted of recently coagulated fibrin, whitish yellow, mixed with blood. Descending into the base of the coronary artery, the nature of this fibrinous mass became changed, very much discoloured, more dry and interlaced, and a greyish-red colour. All these characteristics of thrombus were found still more fully expressed in the ultimate stratum over the base of the sinus of valsalva.

From this stratum, I detached a slender filament, about $2\frac{1}{2}$ centimetres in length, which was originally connected with a recent formation. presently to be described. The valves of the aorta, unenlarged, had a smooth lucid surface, but the posterior one had, over a small space, coalesced with the right and left valves, at the borders of the commissures (this space was in length about 4 milimetres). Corresponding to this coalescence, and to the underlaying triangular portions of the aortic wall, from the posterior valve on one side, and the right and left ones on the other, there were, constructed of the recent (endocardic) excrescences, which were soft and whitish, resembling those situate at the connection of the valves with the deposit, small prismatic columns, clear and fine, adhering lightly to the orifice of the aorta.

At the apex of the column which filled the space of the commissure, from the posterior and the right valve, there arose a fine granular web, pointed and papillary, (excrescence,) of about $4\frac{1}{2}$ millimetres in height, and marvellously resembling an acuminate condyloma; it was not connected with the aortic wall, but floating free in the channel of the aorta. The detached filament, above mentioned, stood in direct organic connection with the point of this excrescence; in reality this filament was no other than the extirpated point of the excrescence.

In the right heart, as I have before said, no trace of endocarditis was found, with exception of the small spaces, intracommissurals from the posterior valve on one side, and the right and

left ones on the other. The walls of both coronary arteries were intact to their extreme ramifications.

This autopsy manifestly corroborates the diagnosis, and it also clearly explains the progressive development of the morbid phenomena. There can be no doubt that from the first formation of the thrombus in the sinus of valsalva, and so long as it had not reached to the precise height of the mouth of the coronary artery, the patient found himself comparatively ill, but that with the commencement of the occlusion of the coronary artery he fell into collapse,—the frequency of the pulse constantly diminishing, and this solely depending on the continuous increase of the thrombus up to complete obstruction. Furthermore, on the origin of the thrombus, and its mode of formation, the dissection furnished exact certainty. Undoubtedly the origin was mechanical. The pointed, papillary excrescence, erect and oscillating in the channel of the aorta, furnished the mechanical conditions. Upon its apex were deposited the first coagula, and then the first thrombus, from continual accumulation of coagula of fibrin, and from its too great weight, could no longer be upheld on the excrescence; therefore, obedient to gravitation, it fell down into the right sinus of valsalva, dragging down with it the flexile excrescence. The fine filament before described, in this manner represented in reality the abstracted apex of the excrescence, for which reason it could not be separated from it without force. Had the cut into the aorta fallen across the commissure, from the posterior and right valves, it is very probable that the papillary excrescence and its apex would have been destroyed, and we would not have been in a position to form a clear idea of the origin of the thrombus.

The case yet presents many interesting features, deserving of diligent examination and discussion. But our narrative has already overpassed the limits of a periodic article; on the other hand it appears to me that the proper time for such discussions will not have come until we have command of a number of similar cases, which may not be very remote if clinical observers will give special attention to the subject, and if experimental pathology, as we believe, will promptly assume possession of the argument.

To the acute and potent intelligence of Conheim this case will be of special interest. In his "*Lectures on General Pathology*," published in the end of 1877, page 24, we find the following,—"And in truth Bezold succeeded, by occluding the coronary arteries with '*the pinzette a morsa*,' and Panum, by creating in the same vessels an artificial embolism, by injections of a weak emulsion of wax, in causing cessation of the heart's action; that a similar fact should come to be observed in human pathology seems to me a very probable occurrence."

When he wrote these words he was not aware that this very fact had, eighteen months before, been actually observed.

The preparation may be found in the hands of my friend, Dr. Wichman.

Methods of Reducing Pyrexia of Fever.—Dr T. G. Thomas has employed the effusion of cold water with great benefit, by means of Kibbee's fever bed. The bed consists of a frame like a common cot, having a bottom of coarse-meshed cloth, made of material similar to that used by the sugar refiners for straining, only not so fine; and under this is an Indiarubber cloth to catch the water as it passes through, which is conducted to a tub at the foot of the bed. A blanket folded double is laid across the middle of the cot, in order to prevent the meshed cloth cutting the patient, and over this is a sheet folded in several thicknesses and hanging over the sides long enough to be brought over and cover the patient's body as he lies upon it. The patient is put upon the bed with his or her night dress well drawn up under the arms, and the lower extremities covered with blankets, and hot bottles placed at the feet. The sheet upon which the water is to be poured is brought up, the two ends lapping over the trunk of the patient, and in this he may be allowed to remain as long as necessary—even three or four weeks. The idea is to keep the animal heat below 100°F., and water at a temperature of from 50° to 80° is poured slowly from a pitcher upon the sheet. The affusions may be made several times an hour if necessary, but in many cases, once in every twelve or twenty-four hours is sufficient, a pitcherful or more being used each time.—*North Carolina Med. Jour.*

ON THE TREATMENT OF ACNE BY THE INTERNAL ADMINISTRATION OF SULPHIDE OF CALCIUM.

BY HOWARD CANE, M.D., L.R.C.P. LOND.

From the great frequency of occurrence of acne, and from its manifesting itself on the faces of individuals of both sexes, about and for some years subsequent to the period of puberty, when any disfigurement is much thought of, especially, though not alone, by the female sex, any therapeutic agent which promises success in this often intractable skin disease will be welcomed by most practitioners as a real gain. It is for this reason that I have been induced to publish the following cases, that the remedy there prescribed may have a more extended trial than I think it has as yet received. I do not bring the sulphide of calcium forward as a new remedy in the treatment of this disease, for it was recommended some years ago by Dr. S. Ringer, but I wish to bring it more prominently into notice as a drug which will often prove of signal service in acne when almost all other means have failed. When I first tried it, I cannot say that I had much faith in its efficacy, and in fact only used it as a *dernier ressort*, because I knew that probably most, if not all, of the remedies commonly recommended for this troublesome affection must have been tried. The success which I attained in my first case, which was of a most obstinate nature, led me to try it in others, and with an eminently satisfactory result. I may here mention that the patient should be cautioned not to wear metallic ornaments during the treatment, as the sulphuretted hydrogen given off from the lungs and skin forms with the metals a sulphide, and this greatly tarnishes any ornaments about the person. I have in all cases employed the sulphide of calcium (in preference to the other sulphides), and it may be combined with a few grains of powdered loaf sugar, which I have found to be better than the sugar of milk usually recommended. I have always exhibited it in the form of a powder, and have given directions that the powder should be kept in some nearly air-tight receptacle, such as a wide-mouthed stoppered bottle or a wooden pill-box with a tightly fitting lid, as left exposed to the air the sulphide rapidly deteriorates. This direction is especially necessary to patients living some distance in the country, where it is inconvenient to be constantly sending to the chemist to have the prescription freshly prepared, for to derive permanent benefit from the use of this drug it is necessary that it should be taken perseveringly for some length of time.

Case 1.—G. R——, a young lady, aged nineteen, has been troubled for the last five years with acne of the most severe kind. When she first came to me her face, especially the forehead, was thickly covered with acne spots in all stages of development, the inflamed and suppurating papules being very numerous. She stated that ever since its first occurrence she had been more or less constantly under treatment, but with the result of the disease becoming worse instead of better; though at times it had seemed to improve, it had invariably relapsed after a few weeks, and become as bad as ever. She stated that she had been to three physicians in London, two of whom are eminent skin physicians. Upon making inquiries into the state of her general health, I found it was excellent in every respect, nor was there any derangement of the menstrual functions, as is so often the case in this affection. The eruption was so thick that she was obliged, when out of doors, always to wear a veil, and it precluded her from entering into society to any extent. She spoke in a very desponding way about it, saying it had been there so long, and she had tried so many different drugs for it, that she was afraid she would never be cured. I encouraged her to hope on still, and, though with but faint hope of success, prescribed the sulphide of calcium, of which I gave at first one-tenth of a grain four times daily, with four grains of powdered loaf sugar. At the same time I directed her to hold her face over a vessel of very hot water night and morning for some ten minutes or more, and then to rub the parts where the little black-topped comedones were very thick with a towel, after which she was to use as a face powder some precipitated sulphur, which I directed to be coloured with Armenian bole. At the same time I gave minute and careful directions as to diet, &c., forbidding pastry and flour puddings of all kinds, all salt meats,

together with pork and veal, and all stimulants, and likewise enjoined the frequent use of all green vegetables, especially cabbage, watercress, and salad generally, together with regular out-door walking exercise. At the end of a fortnight I saw her again, and I found there was a slight improvement, but not very marked; there were not many more inflamed papules, and the black-topped comedones were considerably fewer in number. I determined to persevere, and my patient, fancying she was somewhat better, was quite ready to carry out my directions to the letter, as she was most anxious to get rid of her disfigurement. I now ordered one powder to be taken six times daily, and to see me again in a fortnight; otherwise to continue as before. At the end of that time I again saw her, and, though there was no very great improvement that I could see, still the patient declared she was better, and that there were not nearly so many fresh spots. I now increased the dose of the sulphide to one-tenth of a grain, six times daily; continue everything else as before, and see me again in a fortnight. This she did, and I could now plainly see that there was a marked improvement. The patient was in excellent spirits about it, and had been most zealous in taking her powders and carrying out my directions. I now further increased the dose to one-fourth of a grain six times daily, with a very excellent result; in another fortnight to half a grain six times daily; and at the end of another fortnight not only but few new spots appeared, but they were much less inflamed than usual, and the others were rapidly disappearing, and the complexion was much clearer. To take one grain six times daily for another fourteen days. I then saw her again. She had now been taking the sulphide for three months with the very best possible result. From this time the progress was uninterruptedly good. No fresh spots appeared, and she continued to take the sulphide for another two months, gradually decreasing the dose until from taking six grains daily she took only one. When no fresh spots appeared, the black-topped comedones were all gone and the complexion was very much improved, the slight scars left, which were at first red, becoming pink. I need not say that both mother and daughter were delighted, especially the latter, while the former expressed her gratitude in a very substantial form. I saw the patient eight months after, and no fresh spots had appeared, the scars were rapidly fading in colour, and she now never wore a veil, and was able to enter into society with ease and comfort to herself, which hitherto had been impossible.

Case 2.—C——, a young lady twenty years of age, came to me for an eruption of acne on the face which she had had for a year, and which had gradually become worse. There were some very large inflamed papules, and numbers of black-topped comedones. She had had acute rheumatism some years previously, and a somewhat loud mitral systolic murmur was heard at the apex, but from the general state of her health I judged that, though the murmur was loud, the regurgitation of blood was not very great. I prescribed the same diet and face powder, and gave the same directions as in Case 1, but gave, to begin with, one-fourth of a grain of the sulphide daily, gradually increasing the dose to one grain six times daily. At the end of six weeks she was nearly well, and in another month I saw her again, when she was quite cured. She had taken the sulphide in all two months, gradually diminishing the dose during the last fortnight. This was not so severe a case as the first, but the result was equally good. I may here say that this patient also had been taking various drugs for some months previously, but without any appreciable result.

I have before me notes of fourteen other cases treated in exactly the same way, but which I need not detail, as they are merely repetitions of the two given above. The result in eleven out of these fourteen were perfect, whilst in the remaining three, though great benefit was derived, the cure was not complete. I now always begin with a quarter of a grain four times daily, gradually increasing the dose to one grain six times daily, or according to the progress and severity of the case.—*London Lancet.*

Dr. Fano has put forward a theory of visual accommodation, that the notion of variable distances of objects is due to the formation of more or less distinct images on the different regions of the retina.

FATTY DEGENERATION OF THE DIAPHRAGM.

The diaphragm is a muscle the functions of which are of such importance that it is a matter of some surprise that so little attention has been paid to its diseases. With the single exception of the heart, no muscular structure of the body is in such constant action, and no muscle has so great influence on the functions of important viscera. And yet until now very few observations have been made upon its morbid states, and the student will search in vain for any important facts regarding its diseases, with the exception of a few valuable and suggestive observations recorded in our columns some ten years ago by Mr. Callender. In the last number of Virchow's *Archiv*, however, is an account of some observations by Professor Zahn, of Genth, which show how frequently it is found diseased, how various are the morbid changes it presents, and which suggest very strongly that their influence may often be in a high degree prejudicial. It was, indeed, the observation of some cases in which slight bronchitis and emphysema, with congestion of organs, and simple, moderate dilatation of the right ventricle, seemed insufficient to account for death, but in which marked degeneration of the diaphragm coexisted, which led Zahn to study the condition of the diaphragm in other cases.

The result was the discovery that a degenerated state of the muscular fibres is by no means infrequent. The changes observed were of several kinds—simple brown atrophy, with proliferation of cells and nuclei, and granular clouding, with fatty and vitreous degeneration of the fibres. The former appears to be the more frequent, although the least important. It is not easily recognised with the naked eye, the muscular tissue appearing merely thinner than normal, and somewhat pale. The perito neum covering it, when stripped off, has a brown colour, and between the muscular fasciculi collections of fat exist. The microscope reveals greatly degenerated fibres, lying among others nearly normal. The former have lost their striation, and contain many granules and spherules, much less numerous than those which characterise fatty degeneration, and the smaller disappearing under acids. About the nuclei are accumulations of yellowish granular pigment, sometimes separating proliferated nuclei. A peculiar protoplasm-like substance sometimes surrounds the nuclei, or lies in the muscular fibres, giving them a peculiar appearance, and in places occupying peculiar lateral bulgings of the wall, and these containing numerous nuclei. These bulgings may be so numerous as to be in contact. The proper tissue of the fibres so affected is always more or less degenerated. During two months Zahn met with no less than twenty cases in which this brown atrophy of the diaphragm was more or less marked. Almost all of the individuals presenting it were over fifty years of age; all were considerably emaciated: in most, other organs presented also simple atrophy; and in all the muscular substance of the heart presented distinct brown atrophy. The cause of death in most was senile emphysema and bronchitis, catarrhal pneumonia or some tubercular disease of the intestine; in one cancer of the œsophagus. In all some causes had produced a state of chronic marasmus. Zahn conjectures that the condition of the fibres may have arisen from a degeneration of the contractile element and an imperfect attempt at restorative growth in the cells of the muscle.

The granular and fatty degeneration of the diaphragm gives, as seen through the peritoneum, a pale and somewhat opaque appearance, and when intense, minute yellowish spots may be seen among the muscular bundles. Microscopical examination shows that the degeneration affects all the fibres, and presents its usual appearance, the change in different fibres being, however, far from uniform. In some, the granules are very fine and closely set. The muscle-cells present no proliferation in young persons, but in the old the fatty degeneration may be accompanied by cell-proliferation, with or without a deposit of pigment. Protoplasm surrounding the nuclei is, however, in this case crammed with fat-globules. This change Zahn found twice in nine cases, each individual being over eighty years of age. Callender recorded six cases of fatty degeneration found in subjects of various ages. In all it was associated with marked fatty degeneration of the heart, while the other voluntary muscles were healthy. To

these cases Zahn adds nine others, five over fifty, and four under forty. All presented the traces of more or less bronchitis and emphysema, and some, croupous pneumonia. In the latter cases there was no fatty degeneration of the heart, but in all the others the heart and the diaphragm presented the same change. Putting together Callender's and Zahn's cases, we have ten men and five women, and thus the affection appears to be more frequent in the male sex.

The third form of change—the waxy or vitreous degeneration of the fibres—Zahn has found in one case only, a middle-aged man who suffered from chronic alcoholism, and died of pneumonia. To the naked eye, the diaphragm was normal, but under the microscope many fibres presented the change in its most characteristic form, while others were in a state of commencing fatty degeneration. No similar degenerations could be found in the heart or other muscles, but the liver was fatty.

The correlation of these changes with clinical symptoms has yet, in a great measure, to be made. One of the most important clinical facts is the great frequency with which degenerations of the diaphragm and of the heart coincide. The changes in the two muscles are similar in character, and occur for the most part at a time when muscular tissue elsewhere in the body is normal. The two structures have certain common physiological conditions. From birth to death they are in almost uninterrupted work, and each appears to suffer at the same time from the same general cause; and it may well be that the increased work which chronic bronchitis and emphysema throw upon the diaphragm and heart may lead, in some cases, to the occurrence of the simultaneous degeneration of the two structures, since in the heart the change is found most intense in that portion of the heart on which the greatest work falls—the right side. An explanation of the origin of the degeneration in acute lung diseases, in which commonly the heart is unaffected, is less obvious. All the conditions of muscular overaction tend, however, to produce hypertrophy, as well as, and even more than, degeneration. Whether in these cases the muscular tissue of the diaphragm is increased in quantity is a question that must be left for the present uncertain. The symptoms and consequences to which the degenerations give rise must also be ascertained by further observation. In many of the cases intense dyspnœa had existed during life, but there were in all other conditions to which this symptom might be, in part at least, ascribed. Virchow long ago pointed out that atrophy of the diaphragm increases greatly the effect of asphyxiating causes, and may determine the fatality of the least bronchial catarrh. Whether, however, we may suggest, this is true in cases in which the diaphragm alone is affected, the intercostals being normal, is a point on which further observation is necessary, and on which the phenomena of some cases of paralysis of the diaphragm throw some doubt. The point suggests, however, the desirability of a more careful examination than hitherto has been made into the condition of the intercostal muscles in other cases. This is always important as regards the question of pathogenesis, since, if overwork plays a potent part in the production of the change, the intercostals should suffer in due proportion in the same cases.—*The Lancet.*

Mensuration of the Heart.—At the meeting of the *Association Française pour L'Avancement des Sciences* in August last M. Constantin Paul read a communication upon a new method of mensuration of the heart. The principal objection to former works on the subject is that they take percussion alone as a guide, a method which may lead to mistakes, because the absolute dulness of the heart is confounded with that of the liver. But to come to his process, M. Paul at first sought to determine what were the exact relations of the heart to the anterior wall of the chest; he found that the fixed points were the vena cava inferior, immobilised by the diaphragm (as has been nowhere remarked) and the vena cava superior: the apex corresponds to the fifth rib or to the sixth intercostal space, at eight centimetres ($3\frac{1}{8}$ inches) from the median line; as for the nipple, it is the worst landmark that can be imagined. In cases of cardiac hypertrophy the right edge of the heart always remains in the same place; it is the apex which is carried to the left, and settles down a little on account of the weight of the heart.

"EXPERIMENTS ON THE BILIARY SECRETION, WITH REFERENCE TO THE ACTION OF CHOLAGOGUES."

Seventeen substances have been investigated since the last experiments were published. All the experiments were made upon the dog whilst under the influence of curare, artificial respiration being kept up. Observations were made at periods of fifteen minutes, each experiment lasting eight or ten hours. All the substances were injected into the duodenum as near to the orifice of the bile-duct as possible, and the following is a summary of the results obtained:—Dilute nitric acid stimulates the action of the liver. Physostigma is a powerful stimulant of the secretory action, and its effect is strongly antagonized by atropia, which has a negative influence on the secretion when injected alone. Menispermine, an impure resin derived from the yellow merilla of America, and administered in seven-grain doses in some forms of dyspepsia. did not effect the liver, but acted as a stimulant of the intestinal glands. Babtisin, derived from the baptisma tinctoria, and used in America in the treatment of scarlet fever, tpyhoid fever, aud gangrene, stimulates both liver and intestine. Phytolaccin, like the two foregoing, an American eclectic medicine, is derived from the Phytolacca decandra, and is given in quarter to one-grain doses in chronic rheumatism, and in larger doses as a purgative. It acts upon the liver, its action continuing for two hours; it is antagonised by atropia. Benzoic acid has but little action, sodic benzoate a decided effect, and ammonia benzoate a powerful action on the liver, but not on the intestinal glands. Ammonium phosphate excites the liver briskly, and its effect persists for about three hours. Sodium salicylate powerfully stimulates the liver, but has no action on the intestinal glands. Morphia does not prevent its action, if injected during or before the experiment. Tannic acid has no effect. Hyoscyamus causes a slight fall in the amount of the flow of bile. Acetate of lead diminishes, and potassium iodide neither increases nor depresses the action of the liver. Veratrium acts as a stimulant of the intestinal glands but not of the liver. The action of the cholagogues is not by increasing the secretions of the whole alimentary tract, for some, as gamboge, which stimulate the whole mucous tract, do not excite the liver. Nor is it by increasing the blood flow, for substances stimulating the intestines, and thus causing portal congestion, do not increase the flow of bile. But they act either by stimulating the hepatic cells or the nerves which preside over them. If a purgative agent only stimulates the intestinal canal, it diminishes the secretion of bile by draining the portal vein, and by carrying off the bile-forming substances in the intestine, thus depriving the liver of its supplies in a double manner.—*London Lancet.*

Mollities Ossium.—Dr. Bennett exhibited specimens procured from a subject in the Anatomical School—the wasted body of an old woman. Along the right side of the thorax ran a projection, which looked as if a cart-wheel had passed over the body shortly before death. The long bones contained a red marrow. There was a fracture of the left clavicle and scapula, which had united by bulky, soft, recent callus. Plates 1, 2, and 3 in Sandifort's *Museum Anatomicum* were almost identical with the specimen. Dr. Bennett counted fifty-five fractures in the ribs, and many of these had united with callus. The pelvis was compressed in the direction of the two oblique diameters. There was a triangular fracture in the ilium, and the sacrum was incurved. The history of the case was important. The woman had been several years an inmate of the North Dublin Union Workhouse. She was over ninety years of age, and had been bedridden for many years. She was never known to have any fracture, nor had she ever complained of any pain; therefore, a senile change, almost unnoticed, was what had occurred. This was important from a medico-legal point of view. Ranvier described three forms of this disease—1. True osteo-malacie, occurring in the young subject, and as a sequence of pregnancy (of this form a case was exhibited to the Society by the late Dr. R. W. Smith); 2. Senile osteoporosis; 3. Fatty osteoporosis. On examining the decalcified bone under a low power, a great number of vessels obstructed by what were not mere coagula were observed. Dr. Bennett could not yet state certainly whether this obstruction of the vessels was caused by embola or not. The callus was composed of cartilage passing on into ossification in the ordinary way.—*British Med. Journal.*

Surgery.

ON "LITHOTRITY BY A SINGLE OPERATION," WITH CASES.

BY W. H. VAN BUREN, M.D.,
Professor of Surgery, Bellevue Hospital Medical College.

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Personally, I feel much confidence that Prof. Bigelow's novel proposition, that lithotrity may be safely accomplished at one sitting, will be successfully demonstrated, and that his discovery of the hitherto unrecognized tolerance of the bladder—for it is certainly to be regarded as a discovery, in the full sense of the term—will, by its great practical value, modify the future of lithotrity.

As a contribution towards a final judgment on this interesting question, I append some cases, which, although less serious in character than those of Drs. Bigelow and Curtis, may, nevertheless, serve as evidence.

In March, 1876, I felt justified in attempting to empty the bladder of a calculous patient at one operation—a lady of sixty-six, partially hemiplegic and exceedingly hyperæsthetic, whose sufferings were constant and excessive. Her heart was also weak and dilated, but the ether was, nevertheless, borne well. The stone was phosphatic, and not large. The operation, which was not timed, lasted more than half an hour. The evacuating apparatus was by no means efficient. The urethral orifice was nicked on either side and the finger introduced for exploration, pressure upon the hypogastrium and from the section being employed to bring all parts of the surface of the bladder, as far as possible, in contact with it. The fragments were thoroughly removed, and the operation was followed by no vesical reaction, and by no bad symptoms. A week later there was temporary suppression of urine, and a mild convulsion, which passed off quietly. The patient died six months later, exhausted by the midsummer heats, having experienced much relief from the operation on her bladder.

I have, in several instances, greatly exceeded the conventional limit of five minutes for a lithotrity crushing, and never had cause to regret the infringement of the law, the propriety of which I considered, nevertheless, as based upon too much experience and too high authority to be questioned. In fact, I had taught it myself for years, and regarded its transgression as a risk of doubtful propriety; but the perusal of Prof. Bigelow's paper at once recalled incidents in past experience which accorded with his statements, and so far confirmed the reasonableness of his novel practice, as to determine Dr. Keyes and myself to test it in the following case, which was at that time in our hands:

Mr. I. L., 60, an over-sensitive and timorous person, a sufferer from bleeding piles since early life, has had for ten years occasional irritability with difficulty in emptying his bladder, which led him to habitually use a catheter. Within two months his pain has increased, the urine showing a considerable deposit, for which he came to the city for advice in January last. I found some atony of the bladder and a soft stone of moderate size, and lithotrity was commenced in the usual way. The first crushing, however, was more painful than he had anticipated; he voided very few fragments, and became demoralized, and his bladder symptoms also were aggravated. Under precisely similar circumstances I have been compelled to resort to lithotomy, but now decided to try rapid evacuation. On the 29th he was etherized, his stone reduced to small fragments, and, as far as we could judge, the bladder was entirely cleared. Time, about half an hour; quantity of calculous matter obtained not weighed. There was no reaction whatever on the part of the bladder, and the relief that followed was so prompt and decided that Mr. L. went home within ten days, with instructions to wash out his bladder daily with the "fountain-syringe," and return in a month for a final examination. For this operation neither Bigelow's lithotrite nor evacuating catheter could be had; only his new washing-bottle was used, with one of Nélaton's evacuating-tubes, and a lithotrite, which became impacted. When Mr. L. returned in March, fragments could still be detected by the searcher, and some had passed. He was again etherized, the fragments caught and crushed, and the bladder thoroughly washed out, this time with the new evacuating-catheter. Time, twenty-

five minutes. No reaction whatever on the part of the bladder. In a week he returned home, considering himself well. I saw this gentleman again in July as he passed through the city; he was in improved health, free from vesical pain or irritability, washing out his bladder daily with the fountain-syringe. The latter precaution was required by the persisting atony, which, as far as I could judge, had not been aggravated by the prolonged sittings. His urine had nearly regained its normal appearance.

G. P., aged 63, merchant, a spare, gouty nervous person, was brought to me by Dr. Ceccarini, March 19, 1878, complaining of great vesical irritability, which had been gradually increasing for four months. I found two small, hard, moveable stones, a rigid urethra, a somewhat enlarged prostate, and moderately clear urine. On the 25th Mr. P. was etherized, and 123 grains of uric acid calculus obtained by means of the new pumping-bottle, in about an hour. There was no inflammatory reaction on the part of the bladder, and the temperature did not exceed 101° until the third day, when it suddenly went up to 105°, coincidently with a severe chill, which was followed by profuse sweating and some mental cloudiness. There was no recurrence of the chill; complete inability to pass water followed the operation, and it was regularly drawn, and the bladder washed out with a weak quinine solution. This remedy was also given freely internally, together with acetate and citrate of potass. The atony gradually passed off, and, by the end of the second week, Mr. P. was able to void his urine without pain, at normal intervals, and it was quite clear. Within the month he was entirely well, and has remained so, suffering only a little from a slightly enlarged prostate, and so much of atony only as prevented him from voiding the last drachm of residual urine. We had not yet been able to obtain the Bigelow evacuating-tubes, nor one of the lithotrites in working order. The instruments used for this case were: the Nélaton tube, the new washing-bottle, and one of our ordinary lithotrites of the Weiss-Thompson pattern, which Dr. Keyes had succeeded in having so modified in the blades that it worked absolutely without impaction. This he used in this case, at my request, and the entire freedom from clogging, after a half-hour's steady work, and the uniform size of the hard uric acid fragments subsequently brought away, was exceedingly satisfactory.

I attribute the chill on the third day, in this case, to mechanical irritation of the rigid urethra by the frequent introduction of the catheter, which was rendered necessary by the atony. There was no increase of pus in the urine, nor hypogastric pain, nor other evidence of cystitis.

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In this, as well as in the preceding case, both of which were operated upon on the same day, all the Bigelow instruments were used, except the lithotrite, which was substituted by Dr. Keyes modified Weiss instrument, the working of which has thus far proved entirely satisfactory. The curved evacuating-tubes worked admirably. In the last case it was necessary to incise the meatus freely in order to receive the largest size. As their inventor suggests, care is required in managing the curved beak in the bladder, and the dimple in the bottle must be watched to detect obstruction promptly; but when the tube is rightly placed, the rapidity with which the fragments pour into the glass bulb is exceedingly satisfactory.

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If the safety of Prof. Bigelow's proposition as regards rapid lithotrity be finally demonstrated by adequate proof of the tolerance of the bladder, certain corollaries will necessarily follow: 1. That the cystitis which so often occurs after first crushings—regarded by Thompson and Cadge, in the discussion already quoted, as one of the "serious defects" of lithotrity—is due to the increased mechanical irritatien of sharp fragments, and *not to "continued instrumentation."* 2. That the more thorough evacuation of the bladder attainable by the Bigelow method lessens materially the danger of leaving undiscovered fragments after lithotrity.

It remains to be seen whether the protracted manipulations of "lithotrity by a single operation" are more likely to cause *atony* than the shorter and more frequent sittings of ordinary lithotrity; and whether this disability will not be sooner removed by the prompt restoration to health likely to follow evacuation of the bladder

at one sitting. It may become evident on further experience that atony, like cystitis, is caused and kept up by the presence of irritating fragments in the bladder, rather than by repeated or even prolonged instrumentation.

I have found that the use of cooler water in the daily washing of the bladder by means of the fountain-syringe, and the gentle and effectual fomentation of the surface of the irritated organ thus accomplished, is the best local remedy for atony; and I believe strongly that the regular use of tepid water, in this way, for a time, after lithotrity, by lessening pus-formation and consequent phosphatic precipitation, will diminish the tendency to recurrence, or perpetuation, of calculous disease. In fact, the thorough washing which constitutes so prominent a feature in rapid lithotrity has seemed to me to have a large share in securing for this proceeding the remarkable degree of tolerance of its manipulation which the bladder exhibits.

It may be within the knowledge of the reader that I have advocated for some years fomentation of the interior of the bladder by tepid or medicated waters—a proceeding greatly facilitated by the improved apparatus contrived by Dr. Keyes—as the most efficient remedy in many of its morbid conditions; and it is proper to add here that my confidence in this remedy has been strengthened by recent experience.—*N. Y. Med. Record.*

Permeability of the Entire Alimentary Canal by Enemata.—Dr. Robert Battey, of Rome, Georgia, U.S., in a paper read before the Surgical Section of the American Medical Association at Buffalo, in June, 1878, discussed the question of the permeability of the entire alimentary canal by enemata. He is convinced, both by experiments in the post-mortem room, and by cases occurring in the practice of himself and others, that the ileo-cæcal valve does not prevent the passage of fluids from the colon into the cæcum, if sufficient pressure be used. A number of cases are cited in which treatment based upon these views was very successful.

Appointment.—Dr. Kennedy, of Dundas, has been appointed Surgeon to the North-west Mounted Police, *vice* Dr. R. B. Nevitt resigned.

ON THE DIAGNOSIS OF URINARY ABSCESSES.

Hôpital de la Charité.—(M. Gosselin.)

A propos of a patient occupying bed No. 47, Saint Vierge Ward, I have to direct your attention to a case of great practical importance. The man is affected with an enormous perineal abscess, in all probability urinous, that is to say, caused by the passage of urine into the subcutaneous cellular tissue.

I say that we have in this case an abscess probably urinous, because up to the present moment the direct confirmation of my supposition has not been afforded us, that is to say, we have not yet seen the urine reach the light of day through a perineal fistula; nevertheless, I do not doubt that eight or ten days from now this phenomenon would occur.

It is my opinion, therefore, that this abscess has been caused by the passage of a certain quantity of urine into the cellular tissue, and that it is consecutive to an intense, suppurative, phlegmonous inflammation arising from the contact of this fluid.

This view of the case would be evident if, some time from now, we should see, as I have said, the urine issue from the wound. But it might also happen, even although my diagnosis be absolutely correct, that this phenomenon may be absent. And this is why: When, in certain subjects, there is developed in the canal of the urethra an inflammation behind any obstacle, which most commonly is a stricture, the first effect of this is to produce an ulceration of the mucous membrane, and afterwards a perforation of the canal, through which some drops of urine escape, during micturition, into the subjacent cellular tissue. If the stricture be not very tight, and if micturition occur only at long intervals, it is not impossible that the solution of continuity should cicatrize over and that a certain quantity of urine should thus find itself shut up in the perineum, where it would soon determine an extremely intense suppurative inflammation, notwithstanding that the communication between the purulent focus and the urethral canal had ceased to exist. Ordinarily this cicatrization of the urethral wound is only transient; at the end of some time a new perforation occurs, the urine accumulates anew

in the meshes of the perineal cellular tissue, and consecutively produces a new abscess, and afterwards the formation of a perineal fistula; but it happens that in certain cases things remain in a stationary condition for a rather long time, during which the urine does not find its way out externally. But, you say to me, that one can only affirm the existence of an urinary abscess when the urine flows by the wound. What then are the reasons which authorize you to diagnose in this patient an abscess of that kind, instead of saying that he is simply affected with a phlegmonous abscess of the perineum?

My reasons are these: In the first place, this man appears to have had a stricture. True, I have not established this fact for myself, but he was catheterised on the day of his admission on account of his inability to urinate, either because the pus accumulated in the perineal meshes by compressing the canal of the urethra presented a mechanical obstacle to the passage of the urine, or the pains produced by this abscess provoked a reflex contraction of the neck of the bladder, or perhaps an inertia or complete paralysis of this organ. Whatever may have been the cause, the man micturated by overflow, and the bladder, hyperdistended, mounted up over the symphysis pubis, and it was therefore right to fear that, if it were not promptly emptied, there might result dilatation of the ureters, pelves, and calices, and consequent compression of the cones, and of the malpighian corpuscles, in a word, of all the constituent elements of the renal filter.

When, therefore, you catheterize a patient whose bladder does not empty itself, you render him the service of avoiding the chances of a grave nephritis; although unhappily in certain of these individuals the introduction of the catheter has the effect of itself provoking a reinflammatory condition of the bladder, which, too, may be propagated along the upper excretory passages and reach the kidneys.

Nevertheless, on considering the results furnished by the totality of the facts, we are justified in saying that, speaking generally, there are less chances of seeing grave nephritis occur from emptying the bladder than from allowing the urine to accumulate.

The first reason, then, in favour of an urinary abscess in our patient is the existence of a urethral stricture, manfestly evidenced by the circumstance that it was necessary to catheterize him in order to secure the exit of urine, and that to attain this result it was necessary to use a very fine instrument, No. 9.

If I have not deemed it necessary to verify for myself, as I have already told you, the existence of this constriction, it is, in the first place, because this man now empties his bladder perfectly, and, in the second place, because I do not wish to run the risk of aggravating his condition by again introducing the catheter.

But, you will say to me, there may exist periurethral phlegmons without any communication with the canal of the urethra. Who then has told you that in this patient you have not to do with one of these abscesses? I do not think so, because this abscess was formed very rapidly, and because when these tumours are developed in so short a time they are more likely to result from the passage of the urine into the subcutaneous cellular tissue through some tear or fissure of the urethral walls than from a propagation outwards of an inflammation of which the mucous membrane is the seat. I do not mean by that to say that all urinary abscesses are formed rapidly, far from it: I know, on the contrary, that there are urinary swellings which have a slow, chronic, cold course, a fact the more important to be aware of because under these circumstances one is liable to mistake the nature of these abscesses and to see the phenomena of urinary infiltration supervene on account of having neglected to open them in time. But although certain forms of retention of urine give rise to these phlegmons of slow course, it is none the less true that when an abscess is seen to develop very rapidly, it is always due to the fact that the urethra, torn or ruptured, has allowed a certain quantity of urine to penetrate into the perineal cellular tissue. Another circumstance which also goes to support my diagnosis is that the patient at the time of his admission to the wards presented a swelling of the scrotum with redness and heat, notable and extensive enough to spread up over the pubis. This swelling might be considered, it is true, as due to a dif-

fuse phlegmon; but, as a rule, when a perineal abscess of rapid formation is accompanied by these phlegmons we have ordinarily to do with a case of urinary infiltration.

Thus you should most frequently, if not always, regard this swelling of the scrotum as announcing the beginning of urinary infiltration, seeing that this interpretation will lead you to practise numerous and large incisions, which, if it actually turns out to be retention of urine in the subcutaneous cellular tissue, will enable you to save the life of your patients, and which, should the diagnosis turn out to be ill-founded, will not be attended with any kind of inconvenience.

A fourth consideration in favour of urinary abscess, which is of considerable importance, is that the pus accumulated in the pouch of the abscess was, as the fluctuation indicated, very abundant, and moreover very liquid, both characters which are not observed in cases of periphlegmons. Yesterday, in fact, when we opened the abscess we gave issue to a considerable quantity of pus and so liquid that in place of flowing *en nappe* it was projected with very considerable force.

Well then, it is this establishment of an abundant fluctuation in a man suffering from retention of urine, and this coincidence of an abscess with a diffuse phlegmon, and lastly, the presence of a very liquid pus, which have established me in the opinion that we have to do with a urinary perineal abscess, and have led me to treat it as such.—*Gazette des Hôpitaux.*

Opium Poisoning Relieved by the Application of Boiling Water.—Dr. William Seldon, of Norfolk, Virginia, in a communication to the Virginia *Medical Monthly* for October, relates several cases of opium poisoning in which the patients could only be roused by immersing their feet and legs in water scalding hot. He uses water hot enough to cause severe pain, but tries to stop short of vesication, though in most cases in which he has used it blistering has occurred. He also advocates the plunging of the feet in water scalding hot, or nearly so, in cases of coma or torpor of the brain from various causes.

REUNION AND RESTORATION OF DIVIDED NERVES.

BY C. G. WHEELHOUSE, F.R.C.S.

In the *Lancet* of June the 1st of the present year, a series of experiments are recorded as in progress in Germany, the object of which is to ascertain whether the nerves, like other structures, are not amenable to surgical treatment for their restoration after division and complete loss of function; but, whilst the Germans are patiently experimenting to determine the point, it is my good fortune to be able to answer this question distinctly in the affirmative, as the following case will show.

On May 5th, 1875, a patient named Adam Smith, a labourer, aged 22, entered the Infirmary at Leeds, under my care. He limped into the ward on crutches, his left lower limb being completely paralysed and useless, and stated that he had come to request us to remove it, as an incumbrance. The story he told me concerning it was this. Nine months previously, as he was returning home one evening, at the close of his day's labour, carrying his scythe over his shoulder, being anxious to make a short cut to his cottage, he attempted to climb over a fence; in doing this, the point of his scythe caught in the hedge behind him; he was jerked suddenly backward, and fell with the back of his thigh upon the sharp edge of the implement. The result of this was a ghastly wound, the contracted cicatrix of which measured nine inches in length when I first saw it nine months afterwards. He lay, bleeding profusely, where he fell for many hours before he was found and carried home; there the hæmorrhage was staunched, the wound was dressed, and, in process of time, it slowly healed; but he noticed, during the whole time so occupied, that the limb was slowly wasting and withering away, and that it manifested no sign whatever of any returning sensibility.

Eventually, when he was able to leave his bed, he found to his horror that, although the wound was healed and the limb was apparently saved, it had become wholly useless to him. So far as the distribution of the sciatic nerve was concerned, the power of sensation was entirely lost; of voluntary muscular power he had none, and the joints were relaxed and flaccid.

I need not detail to you all the efforts, vain efforts indeed, that he made to recover the lost powers of the limb; suffice it to say that, receiving no benefit from anything he did or tried, he finally came to the hospital to ask for its removal.

The whole cause of the mischief was, of course, clear at a glance. The sciatic nerve had been divided, and, in the healing of the wound, the separated ends had never reunited. Here, if ever, was a fair opportunity to test the question, Are nerves which have been divided, and have for long remained disunited, capable of restoration?

I called my colleagues to my assistance in forming an opinion on the matter. Dr. Clifford Allbutt was good enough most patiently and carefully to test electrically the condition of the disused and wasted muscles, and he reported that, though not wholly destroyed, their irritability was well-nigh exhausted. My surgical colleagues agreed with me that whereas, should the attempt to restore the lost nerve-power altogether fail, I could still, as a last resource, remove the limb, I should be justified in making an attempt to reunite the ends of the divided nerve. After fully explaining to the patient the position of affairs, and obtaining his assent, I determined to do so.

Having laid open the back of the thigh, and, by a careful and deliberate dissection of the parts, exposed the wounded nerve, I found it completely cut across; the two ends were firmly felted in cicatricial tissue two inches apart. On the upper one was a large bulbous swelling, the lower appeared atrophied and somewhat wasted. Both were carefully loosened and detached; the bulb was removed from the upper one, and each was then pared obliquely until apparently fresh nerve tissue was exposed. When I then attempted to bring them together, the nerve was found to be so much shortened that I could not do so until I flexed the knee fully. This enabled me to make the ends of the nerve meet without strain; they were then carefully stitched together with very fine carbolised catgut thread, the wound was closed, the ankle was firmly lashed to the buttock, and in this position the patient was put to bed.

I will not weary you with details. Suffice it to say that little by little, and in very wandering fashion, day by day, and week after week, sensation was found to be returning in the limb. At the end of five weeks, I began slowly to relax the position and let down the leg inch by inch, until at length it became straight again, and then, to my intense satisfaction, I found that the restored sensibility remained. By very slow degrees, the power of voluntary motion also returned, and, on August 7th, he was discharged from the hospital so far cured that, with the help of two sticks, he was able to support himself on the limb and could walk. From that time to this, he has gone on improving. During the whole of the past winter, he has worked in the fields as he was wont to do before his accident, requiring neither stick nor support nor help of any kind; and, though the limb remains greatly inferior in size and nutrition to the opposite one, it is, to all intent and purposes, a useful member again.

Since the performance of that operation, my colleague Mr. Atkinson has in similar manner succesfully reunited a divided median, and Mr. Jessop has reminded me that, long prior to my case, he also had been equally happy in thus dealing with an ulnar nerve.—*British Med. Jour.*

Contraction of the Fingers.—Mr. William Adams thus describes the operation and treatment which he now practises in cases of Dupuytren's contraction:

1. The subcutaneous division of all the contracted bands of fascia which can be felt; the bands to be divided by several punctures, with the smallest tenotomy-knife passed under the skin and cutting from above downwards, a pledget of lint being at once placed over each puncture and retained in position by a strip of plaster.

2. Immediate extension to the full extent required for the complete straightening of the fingers, where this is possible, and the application of a retentive well-padded metal splint from the wrist along the palm of the hand and the fingers; the fingers and hand to be bandaged to the splint.

3. The bandage not to be removed until the fourth day, when the lint and plaster may also

be taken off, as the cutaneous punctures are always found to be healed by the fourth day. The retentive metal splint to be reapplied and the hand and fingers bandaged to it.

4. Extension to be kept up by the splint worn continuously night and day for two or three weeks; but the splint and bandage to be changed every two or three days. After this the extension splint is to be worn at night only for an additional three or four weeks, free motion being encouraged during the day.

Compound Comminuted Fracture of Great Wing of Sphenoid Bone on Left Side.—Dr. E. W. Collins detailed the case of a boy aged 14, who was struck by a bolt propelled with force from some machinery to which he was attending in a saw-mill. Profuse hæmorrhage took place at the time of the accident, from an extensive lacerated wound in the left temporal fossa. Symptoms of cerebral concussion and syncope were present, and profuse reactionary hæmorrhage occurred at 5 a.m. the next day, which was restrained with difficulty. When the wound was opened up a few hours later, the finger passed downwards between the zygoma and sphenoid into the zygomatic fossa. The finger could be passed into a fissure in the base of the great wing of the sphenoid, where it was extensively fractured. The profuse hæmorrhage was found to come from the zygomatic fossa, indicating laceration of either the internal maxillary artery or its middle meningeal branch. Owing to the depth of the wound, the bleeding could be checked only by direct pressure within the wound by plugs of lint. This was effectual, the plugs separating without further hæmorrhage. No intracranial complications ensued, probably in consequence of the large amount of blood lost. Necrosis took place, and two months afterwards many pieces of bone were removed from time to time. The boy perfectly recovered. Dr. Collins showed the necrosed fragments of bone.—*British Med. Journal.*

Prevention of Threatened Mammary Abscess.—A mixture of chloroform and glycerine, well shaken and quickly applied, and covered with oiled silk is highly recommended.

Midwifery.

ON CERTAIN FORMS OF NON-PUERPERAL UTERINE HÆMORRHAGE.

BY A. E. AUST LAWRENCE, M.D.,
Physician-Accoucheur to the Bristol General Hospital.

With a view of bringing prominently before you the causes which produce uterine hæmorrhage in non-puerperal women, in order that suitable treatment may be adopted, I have analysed my hospital cases with special reference to this symptom; and I find that, out of a total of nearly seven hundred patients seen by me during the last three years, ninety came complaining of hæmorrhage, and it was only that symptom upon which they laid stress when detailing their troubles. The hæmorrhage in these ninety cases was found to be due to eleven different pathological conditions.

The following are the eleven causes, and the number of cases they each furnished :—

1.	Malignant disease	25 cases.
2.	Fibroid tumours of the uterus ..	8 "
3.	Mucous and fibrinous polypi growing from the cervix uteri	9 "
4.	Subinvolution of the uterus ..	10 "
5.	Retroflexion	5 "
6.	Anteflexion	3 "
7.	Parametric inflammation ..	5 "
8.	Hæmatocele (pelvic)	4 "
9.	Ulceration (so-called) of os and cervix uteri	10 "
10.	Stenosis of cervix and os uteri ..	6 "
11.	Anæmia	4 "

I will now mention briefly the main points in the diagnosis and treatment of each of the conditions above enumerated.

1. *Malignant Disease.*—It is certainly a terrible thing to contemplate that one out of twenty-eight patients applying, for different uterine diseases, should be affected with so terrible a disease; and of those applying for the relief of hæmorrhage, nearly one-fourth were malignant cases. Before passing to consider the points in diagnosis, I wish to refer to the very advanced condition in which most of the cases were before they came to the hospital; this I attribute to the fact that, in a good many cases, pain was not a prominent symptom in the early stages, nor was hæmorrhage, until the mass began to break down. The forms of malignant disease have been epithelioma in one-third and medullary cancer in

two-thirds of the cases. The age has varied from twenty-seven to sixty-nine; so you see that age does not enable us to negative the existence of malignant disease. Fifteen cases were over fifty years of age. The chief points in the history were, that the catamenia had ceased for periods varying from one to ten years; and that they had again, to use their expression, become unwell; some of them with pain, and others without. This cessation and recurrence of hæmorrhage at this epoch of life is a most suspicious circumstance, and always demands a most careful examination; there may be no pain, and yet advanced cancer may exist. I have notes of several cases where the pain was so slight as not to draw the patients' particular attention to it. When pain is present, it is in some cases excruciating, being felt in the lower part of the abdomen, back, hips, and thighs. The pain is often lessened by the hæmorrhage, I believe, by relieving the general congested condition of the uterus; and were it not that the anæmia is so soon induced by the repeated discharges of blood, one would regard the hæmorrhage to a certain extent as beneficial.

One point very suspicious of malignant disease is the way in which the hæmorrhage begins. Thus a woman may have ceased menstruating for, say, two years, when she suddenly loses a great quantity of blood; probably this discharge goes on for twenty-four or forty-eight hours, and then ceases, to recur again, at an interval varying from a few days or weeks to even months, until it eventually becomes more or less continuous. I say this mode of bleeding is suspicious, but not absolutely characteristic of malignant disease, as I have seen it occur in two cases of fibroids of the uterus. In these cases, the women had both ceased menstruating about two years, when, in each case, a severe fit of pain (referred to the uterine region) and hæmorrhage set in suddenly and lasted for some weeks, when, upon examining them, I detected a fibroid polypus coming down through the cervix uteri.

In the other nine cases of malignant disease, the patients had not ceased menstruating. They all complained of excessive menstruation; in most of them the period lasted from ten to fifteen days out of each month; some of them had bleeding for about two days each week. The main point was that there existed an excess of blood-discharge, both too much and too frequent. Some had pain, others had none. There was nothing characteristic about the discharge of blood to enable one to say definitely, without an examination, what its cause might be. The suspicious point in some of them was that exertion or coitus would often produce a sudden flow of blood.

The only definite opinion is derived from a digital examination. In the advanced cases, it is soon learnt by the finger that the absence of the natural os and cervix uteri, a rugged cavity being recognised instead, a hard feeling in the roof of the vagina, and fixation of the uterus, tell only too surely the tale of malignancy. In early cases, the enlarged lip of the cervix uteri, with one or two prominences and a hardness about the cervix, is often quite enough to raise one's suspicions. The finger is all that is requisite for the diagnosis of malignant diseases; but the microscope is required, in some cases, before we can say whether it is medullary or epithelial. Now, as the finger is so important, I often wonder that it is not more used in the diagnosis of the various uterine diseases to the partial exclusion of the speculum.

I am often asked by gentlemen how I know by the feel that it is a malignant diseased condition of the cervix; why is it not something else. Possibly, they suggest simple ulceration, but at the same time admit they only know simple ulceration by the look and not the feel; and I trust that I may be excused for saying that no man has a right to use the speculum before his finger has told him that it is required, and, I am sure, for the purpose of diagnosis, the speculum is not often wanted.

The diagnosis of malignant disease by the finger is done by exclusion, to a certain extent, until one becomes accustomed to the feel of cancer in its various stages and phases. Let the finger become accustomed to the feel of the different diseased conditions of the uterus, and then the diagnosis of cancer will be an easy matter. The eye can be deceived more easily than the finger. Take, as an example, a

fibroid polypus hanging in the vagina; for some time, nothing looks so much like a mass of medullary cancer; it has a nasty sodden look, and bleeds when touched by the speculum; but as soon as the finger touches it, and sweeps round it and feels the cervix, all anxiety is at an end, as you have a case you can cure straight off.

The question of treatment is, I am sorry to say, not satisfactory; but a great deal may be done that is often left undone. Disinfectant and astringent injections give comfort, to, say the least of it. Destruction of the sprouting mass with the actual cautery, although a temporary measure, yet is often beneficial for the time; as also is the plan of scraping the surface where the growth presents numerous small points. One plan, lately advocated by Dr. Marion Sims, is also a good one, and enables the surgeon to follow up the malignant disease higher in the uterus than can be done with the *écraseur*. His plan is to cut away, with knife and scissors, bit by bit, every portion of diseased tissue, restraining the hæmorrhage after with firm plugs of cotton-wool, soaked in a saturated solution of persulphate of iron. He maintains that the disease is kept in abeyance more by this plan than by any other of the operative proceedings.

In reference to the use of the *écraseur* in the various forms of malignant disease of the cervix, where it is desirable to remove portions of the uterus affected with cancer, my experience is that it is far inferior to the knife and scissors, unless the portion is very pedunculated. In cases where the cervix is in broad flattish lobes of medullary cancer or epithelioma, it is almost impossible to get above the growth into healthy tissue. I believe the best plan is to cut away as much as possible, and use the actual cautery; but even this is not free from danger, as plugging of the pelvic veins has been occasioned by the application of escharotics and caustics to the diseased tissues.

With reference to medicinal treatment, the main point is to keep up the general health as much as possible, by giving cod-liver oil and mild non-astringent preparations of iron. To relieve pain, the various preparations of opium, chloral, etc., would at once suggest themselves to you; but there is one drug I have found very useful in relieving pain in these cases, and that is ergot. I believe it acts by lessening the blood-flow into the uterus, and therefore keeping it freer from congestion. I was led to try it by noticing that the pain was frequently much lessened by hæmorrhage; and therefore I considered that, if it were possible to check the blood somewhat from passing into the uterus, then one might gain the same object. It has answered very well in several cases. As an injection in these cases, I prefer iodine, and, if much pain be present, I add carbolic acid and opium.

The prognosis in these cases is, unfortunately, bad; but I have been struck with the time that they go on without destroying life. One sees cases where the whole of the cervix is destroyed, with ulceration into the bladder and rectum, and yet they live for months. Other cases are more rapid, and seem to die without anything like the amount of local disease with which some patients live months.

2. *Fibroid Tumours.*—I now allude to the second class in my table, viz., those cases where the hæmorrhage was due to fibroid tumours in the uterus. There have been eight cases where the patients have come complaining of hæmorrhage, and, upon examination, a fibroid condition of the uterus was diagnosed. The age in five cases was under forty; in the remaining three, it varied from fifty to sixty. It is impossible here to enter fully into the diagnosis and treatment of fibroid uterine tumours. I only wish to draw attention to a few main points, so that one's suspicions might be aroused, and one's attention directed to a possible cause of hæmorrhage. One main point is in the cases of those women under forty years of age—excessive menstruation, the discharge lasting ten days or a fortnight, and recurring at the end of a similar period. Another point noticed is that the blood most frequently contains clots, and the period is often accompanied with great pain. The sound often shows displaced conditions of the uterus and an elongated state, the cavity often measuring four or six inches. The diagnosis, in some cases, rests entirely upon the history of hæmorrhage and the enlarged condition of

the uterus, as it is not always possible to detect a fibroid tumour of the uterus as a distinct mass, growing either into the cavity of the uterus, or out from its walls towards the cavity of the abdomen; in this last form, hæmorrhage is not such a troublesome complication, although the pain is often greater. One case came before me, eighteen months ago, with a history of excessive menstruation, passing clots, and great pain. The cavity of the uterus measured three inches and a half. There was no external source for the hæmorrhage, and upon examining the cavity of the uterus, after dilating the cervix, there was not found any growth; however, from her history and the absence of any other cause, I entered it in my case-book as one of fibroid tumour of the uterus, most probably lying in the walls of the uterus, immediately beneath the mucous membrane. This patient took ergot for the last eighteen months, and gradually a fibroid tumour was expelled into the cavity of the uterus, and, dilating the cervix, presented at the external os. At this stage, I saw her again, and removed the growth with the *écraseur*. I relate this case as being typical of a large number of others, where the fibroid tumour lies in the wall of the uterus, between its muscular layers, and gradually grows towards the cavity, or is pushed in that direction by the fact that, in the case assumed, there is a thicker layer of muscular fibre on the peritoneal side of the tumour than upon the mucous; this gradually converts an interstitial fibroid into a submucous, and eventually into an intra-uterine tumour, and even it may be dislodged entirely from the body. In the cases where the age varied from fifty to sixty, the diagnosis of malignant disease had been made in two of them before they were sent to the hospital, simply on account of the hæmorrhage and pain; and, I am sure, anyone looking at them would have drawn the same conclusion. In fact, I would not give an opinion to my obstetrical clerk before I made a vaginal examination, as their history was like that of malignant disease. A vaginal examination revealed in all three cases a fibroid tumour coming through the cervix uteri, and in one case reaching nearly to the vulva. In each case, removal of the growth by the *écraseur* entirely relieved both the hæmorrhage and pain. To sum up, the diagnosis must be made partly by excluding all other known sources of hæmorrhage, and partly by direct evidence of the existence of a fibroid growth, either as an enlargement in the wall of the uterus or growing out from it. Several of my cases were diagnosed at an early stage to be fibroid cases, mainly by exclusion, with the assistance of two positive factors, viz., uterine enlargement and excessive uterine hæmorrhage.

The question of treatment I must dismiss in as few words as possible. In some of the worst cases, where the tumour is large and embedded in the uterus, nothing can be done with a view of curing the disease, unless we subject our patient to the ordeal of gastrotomy and remove the uterus. These cases, however, can have two symptoms relieved to a certain extent, viz., hæmorrhage and pain: the former by ergot and the latter by opium. In some cases, where the cervix is narrow and allows the blood to become pent up in the uterus, and so act as an exciting cause of more hæmorrhage, and pain is produced, these symptoms are relieved to a great extent by dividing the cervix. Where the growth is pedunculated, the proper course to adopt is removal by the *écraseur* or knife. Where no operative measures are admissible, much can be done by maintaining the uterus in a good position, keeping up the general health, and lessening the hæmorrhage by ergot, turpentine, etc.

(*To be Continued.*)

Pemphigus Vaginæ.—Kleinwachter (*Cbl. f. Chir.*, 1878, p. 392; from *Präger Med. Wochens.*) gives the following case. The patient had suffered from pemphigus, especially of the leg, for three years, in spite of every kind of treatment. The mucous membrane of the vagina was laid bare of its epithelium in numerous small patches, and bled easily upon contact; on many of the patches a thin, sometimes rumpled skin could be observed. The intact portions of the mucous membrane were reddened, and poured out a catarrhal secretion. The upper third of the vagina was particularly affected. About the vulva six or eight distinct bullæ could be seen. Astringent injections were ordered, but the patient, who suffered no discomfort from the eruption, disappeared.

Therapeutic Notes.

For Dysentery.—Injections of chloral grs. v to x to ʒii of starch are highly recommended.

Constipation.—Injections of chloral (gr. x to ʒi) are recommended for habitual constipation also glycerine ʒi to ʒi of warm water.

Perfumed Carbolic Acid.—Carbolic acid one part, oil of lemon three parts, alcohol at 36° 100 parts. M. The odour of the oil is alone appreciable.

Dr. Busey, (*American Practitioner*) recommends the combination of oxalate of cerium with opium to obviate nausea, &c. He also gives strong coffee or the citrate of caffeine.

Keloid.—Dr. J. E. Kempf reports, in the Louisville *Medical News*, a case of keloid cured by injecting two or three times a week, for several weeks, extract of ergot dissolved in alcohol.

Inflammations of the Naso-Pharynx.—Mr. Lennox Browne commends iodoform as superior to all topical applications. Apply an ethereal solution (one in ten) by means of a brush, or mix with vaseline (5 to 8 grs. to ʒi.)

Laryngismus Stridulus.—Mr. Wm. Stewart (*Lancet*, May 25) has found chloral the remedy *par excellence* in laryngismus stridulus. He gives two grains to a child six months old, two and a half at twelve months, and three grains at three years.

Vaginitis.—Dr. Parvin, in an obstinate case of membranous vaginitis, after failing with nitrate of silver, carbolic acid, sulphate of zinc, tannin, and glycerine lotions, and mucilaginous injections, used tampons of lint smeared with oxide of zinc ointment, and in a week great improvement followed.

Koumiss.—Take a quart champagne bottle, put in two ounces of fresh yeast and half an ounce of powdered sugar, and fill with fresh unskimmed milk, cork tightly and tie. Let it stand in a warm place until the liquid begins to thicken, then lay on the side in the cellar for about a week, and you will have a splendid article of fresh koumiss.

Irritable Testis.—Dr. Reuben A. Vance, of Galliopolis, Ohio, reports a case of obstinate neuralgia of the testis which he cured by the application by means of a speculum, of vesicating collodion to the rectum over the prostate and vesiculæ seminales, allowing the collodion to dry before removing the speculum, and then inserting a wad of cotton saturated with glycerine.

Diabetes.—After all other remedies had failed, Dr. Balfour, of Edinburgh, gave diluted nitric acid in 20 minim doses four times a day to a patient with diabetes: the diet was restricted. A year previous he was passing 400 oz. of urine daily, containing 16 oz. of sugar, and three months before he weighed seven stone. The daily quantity of urine was reduced to 50 oz., with 1 oz. of sugar, and the body weight had risen to nine stone.

Chorea.—Dr. John Van Bibber, of Baltimore, in the *Transactions of the Medical and Chirurgical Faculty of Maryland* for 1878, has a paper on the treatment of chorea by prolonged rest in bed, and cites eight cases in which the element of rest was the main factor of treatment, which was singularly successful: the average duration was two weeks. The patient should be free from interruption or irritation in a darkened room. Massage or passive exercise was ordered twice daily, and nourishment liberally given.

Chromic Acid Catgut.—Take a few yards of thin, common, unprepared, dry catgut, and place it in a wide-mouthed vial, containing glycerine and carbolic acid, (one part of acid to seven of glycerine), and after steeping for a week or longer, transfer the catgut to a vessel containing chromic acid one part, acetic acid twenty-five parts, water seventy-four parts. At the end of seven hours take the catgut out and dry it, while made tense, by winding round two nails driven into a piece of wood. In the course of a few hours it is fit for use. It is brownish-black, smooth and strong.

Treatment of Acute Intestinal Catarrh of Infants by Mercuric Chloride.—Dr. Rudolph Ravenburg, (*Med. Rec.*, July 6, 1878,) calls attention to this use of corrosive sublimate which Ringer so earnestly advocates. To avoid the errors of drops Dr. Ravenburg prescribes one grain of the bichloride to 12 oz. dist. water; a teaspoonful to be mixed with an ordinary teacupful of milk previously subjected to a heat of 150° for five minutes, the milk should never be brought to the boiling point. Of the milk as prepared, the judgment of the physician is required as to the quantity to be given. In ordinary cases the fecal discharges will, without any other remedy, gradually lessen and be restored to their normal condition. In severer cases it may be necessary to use as an enema a cupful of boiled and cooled water, plus starch or laudanum, as the physician may deem proper.

Chronic Pharyngitis.—The following treatment of Pippingsköld for chronic pharyngitis will at least commend itself for its simplicity. In case of pharyngeal catarrh, with extension to the mucous membrane of the general air-passage, he recommends methodical and thorough gargling, morning and evening, with water at a temperature—of 15° to 20° C. This to be continued for months, or, under certain circumstances, for a whole year; at least to be recommenced as soon as the symptoms of the catarrh shall begin again to annoy the patient. Two glasses full of water at the above temperature—used at each gargling—relieve hyperæmia, and restore tone to the relaxed vessels of the soft palate. Ice-cold water, in less quantity, will reduce the temperature of the parts more quickly, but causes a powerful reaction, with increased hyperæmia, and can easily therefore do more harm than good. The writer recommends this remedy likewise in granular pharyngitis.—*N. Y. Med. Journal*, July, 1878.

Division of the Abdominal Aorta by a Pistol Bullet.—Survival for one hour and ten minutes after the abdominal aorta was divided in three-fourths of its circumference by a pistol bullet, which also cut the right renal vein, is reported to have occurred in Detroit.

Original Communications.

A FATAL CASE OF CHRONIC GASTRIC CATARRH.

Specimen presented by Dr. Graham before the Toronto Medical Society.

George Hastie, aged twenty-four, clerk, single, was admitted into the Toronto General Hospital. He had one sister, who died of phthisis: family history otherwise good. He never drank to excess, but used tobacco very freely until two years ago: since then he has smoked occasionally. He commenced the habit of masturbation when he was ten years of age, and continued it until two years ago. Most of his life he has spent in the smoky part of Glasgow: came here about a year ago. He has always had delicate health; had small-pox when young: is always of a costive habit: never had any venereal disease, has had emissions twice a week for the last two years. I learned from the nurse that before he left Scotland he kept a cigar and tobacco store. Present disease: patient has complained of trouble with the stomach for the last eight years. The principal symptoms have been pain in the epigastrium and in region of the heart an hour or so after eating, with constipation and headache. He was laid up three years ago with what the doctor called chronic dyspepsia and inflammation of the stomach. He had another attack sixteen months ago. During both attacks the treatment was a light dry farinaceous diet, and medicine to relieve the constipation. The present attack began nine months ago. He has not had as much pain in the stomach as in previous attacks. He thinks it was brought on by eating canned peaches three times a day. His bowels are obstinately constipated, and if not relieved by medicine, a week or more will pass without an evacuation. He is of melancholy disposition; dreams very much during sleep, and is excessively irritable and hard to deal with when awake. He had eaten nothing for two days; has severe headache; takes nothing but milk and water and a part of a soda biscuit occasionally. He never vomits, but immediately or soon after taking food he is seized with a severe dull pain in the stomach; sometimes a burning sensation, together with pain or palpi-

tation of the heart. He is very thin, and his countenance has a pinched, anxious, discontented look. The temperature is normal. Pulse, 48 or 50.

Treatment.—A mixture of bismuth with chiretta and pills of ferri sulph., ext. nux. vom., aloes socot. One to be taken twice a day.

January 19th.— Patient somewhat better, he can take a little more milk than formerly, cannot take beeftea or any kind of beef essence without causing unbearable pain. No kind of pills or medicine seems to have any effect on the bowels, which are only moved on the administration of an enema.

June 26th.—Patient is worse again : ordered him lactopeptine to be taken in sherry wine.

July 2nd.—He is gradually becoming more emaciated ;—is very much more so than when he came in. The lactopeptine seems to have had no effect. He sometimes takes only a biscuit in two days without milk or even water, the latter almost causing as much pain as the milk. He is greatly greatly troubled with thirst. Tongue dry and coated. Had to put him on a water bed to avoid bed sores.

July 9th.—Ordered rectal alimentation. He is much troubled with eructations and difficulty of breathing and severe cramping pains in the stomach.

July 16th.—The rectal alimentation has not been successful, as the nurse had been using too large an amount at a time. Ordered smaller quantities.

July 23rd.—The patient is becoming weaker, and is occasionally feverish. Pulse more rapid. Dr. Wright, who saw the case with me, spoke of a similar case in which the post-mortem revealed a very much contracted stomach. We examined the lungs and heart and found them healthy. There appeared to be a swelling a little to the left and below the umbulicus. No other abnormal condition of the abdomen could be found. He complains of pain in the region of the heart, with palpitation.

August 5th.—Patient died this morning, apparently from starvation. Had severe pain in the region of the heart.

Post-mortem appearances.—Body extremely emaciated; weight, about sixty pounds ; height, five feet eight. On opening the abdomen found the liver slightly congested : weight, two pounds three ounces. It was a matter of difficulty to find the stomach. It did not appear nearly so large as the transverse colon. Its weight, with the contents as removed, four ounces. The lower margin appeared thickened. On opening it, found it to contain a mucous substance. The mucous membrane had a peculiar granulated appearance and the rugæ were very prominent. In some parts it was of a dark red colour and in others greyish. It did not anywhere present the pink colour ordinarily seen. It was thickened and indurated in some places, and in others, it appeared thinner than normal. There was no special thickening towards the pyloric orifice. The organ would not hold more than twelve ounces of fluid.

Kidney appeared normal, but very small ; weight, three ounces. Heart weighed four ounces : no valvular lesions ; pancreas, two ounces ; spleen, two ounces. Lungs were healthy. I am sorry that, for want of time we were not able to examine the mesentery and *receptaculum chyli* as well as we might have done. We found no tumour of any kind.

From the observations I have made of the patient, and from my reading, I would call the case one of chronic gastric catarrh. This disease is described very fully by Niemeyer in his " Practice of Medicine." Catarrh of the stomach is common in Germany, caused, I think, by too great consumption of lager. In Reynolds' "Practice of Medicine" there is also an excellent article on this subject. The principal symptoms given by these authors are feeling of weight in the stomach after eating, together with fulness, rifting, vomiting, the latter not a constant symptom. The food sometimes undergoes decomposition in the stomach, causing an accumulation of gases. Hunger and thirst annoy the patient. There is generally obstinate constipation. Emaciation, anxious, discontented face, and contraction of the skin are given by Reynolds.

Causes.—Venous obstruction, constant use of food which disagrees, medicinal substances and constant use of alcoholic beverages. There is very frequently some other disease present : phthisis, heart-disease, or Bright's

disease. The cause in this case may have been the excessive use of tobacco.

Pathological appearances.—Local congestions and extravasation: mucous membrane is indurated, and presents an ash-grey colour with small spots of pigment. The membrane is also thickened in places, generally near the pylorus.

On microscopical examination a degeneration of the tubules is found. They are often less in number and the contents have undergone degeneration, &c. Wilks and Moxon, Habershor Handfield Jones and Wilson Fox all speak of this degeneration of the lining membrane. The great diminution in size might, in great extent, be due to its almost entire emptiness for the last two or three months. Delafield gives as causes for small stomach (1) New growths; (2) Hypertrophy of the muscular coat; (3) Cicatrization of ulcers; and (4) Habitual emptiness.

Diphtheria everywhere prevails inversely to typhoid fever, with which disease it is closely allied, although an attack of typhoid fever affords no protection from a subsequent attack of diphtheria, nor *vice versâ*; when introduced into a town diphtheria may become epidemic, and be disseminated by precisely the same channels as typhoid fever; the infection may be conveyed into any house by sewer gas or otherwise, altogether irrespective of dampness of structure; but its endemic breeding grounds are to be found in certain well-defined spots in rural districts, where it is constantly liable to break out as if *de novo*, and the constant condition of these localities is structural dampness of habitation.

Tracheotomy in Croup.—At the Children's Hospital in Paris up to 1848, forty-nine operations were followed by forty-eight deaths. In 1858 only three escaped out of forty-two operated upon. Oppitz, in a tabulated series of ninety-six cases of tracheotomy for the extraction of foreign bodies, found seventy-three cases of recovery. Bouchut has collected 388 cases of tracheotomy for croup, of which 346 were fatal and forty-two recoveries.

UNCOMMON SYMPTOMS IN A CASE OF BRIGHT'S DISEASE.

[Read before the Toronto Medical Society.]

BY DR. A. ALT.

Lecturer to Trinity Medical School, and Ophthalmic and Aural Surgeon to the Andrew Mercer Eye and Ear Infirmary.

As a rule, neuroretinitis is one of the later symptoms in Bright's disease. However, every now and then the oculist has occasion to see a case of pronounced neuroretinitis of an albuminuric character, when there is no other symptom of the disease of the kidneys present, and the latter sometimes develop many months after the disease of the eyes has first been observed. The following case, which has lately come under my observation, is an example of these rare forms; however, it shows some further symptoms, which make it, it seems to me, especially interesting.

On April the 12th, 1878, Miss J. W. B., æt. 30, presented herself at my office on account of failure of sight. For several months she had been treated for neuralgia and general debility and loss of appetite, and for four months her eyes had been gradually getting weaker. A prominent symptom in the general disease was attacks of violent headache, localized above the eyes. These attacks would last sometimes for several days, and leave behind a marked numbness, which was mostly confined to the left side, sometimes also involved the right. During the attacks, the patient lost control of her tongue for some time, so as to be unable to speak.

The following was the *status præsens*: Patient is a rather frail and anæmic individual. Sight in the right eye, $\frac{20}{40}$: in the left, $\frac{20}{70}$, with difficulty. Jaeger No. 8. On ophthalmoscopic examination, I found that in both eyes the outlines of the optic disc and the origin of the retinal vessels were invisible, being hidden by a whitish infiltration of the papilla and a small area of the surrounding retina. The arteries were thin and anæmic, the veins broad and tortuous, overfilled. There were no hæmorrhages and no fatty patches.—This, then, was the picture of optic neuritis in both eyes; and the ophthalmoscopic appearance gave no clue as to its origin. The visual field was, perhaps, a little contracted; perception of colours and tension

of the globes were normal. There was no organic disease of the heart, no symptom of kidney disease (especially no albumen in the urine), nor did the ophthalmoscopic condition remind one of Bright's disease, since the characteristic hæmorrhages and fatty patches, etc., were wanting totally. There was no history of syphilis, injury, or lead-poisoning.

From the symptoms above related I came to the conclusion that, with the greatest probability, I had to deal with a case of tumour of the base of the brain ; and hearing afterwards that the patient's father had died from a tumour of the brain, I was the more convinced of the correctness of this diagnosis. I then treated the patient symptomatically; gave her iodide and bromide of potassium and iron, and advised rest for the eyes, some out-door exercise after the sun had gone down. Later on, I applied a weak constant current for some time, and, finally, gave tannate of iron. Under this treatment the general health and the sight improved gradually. The patient had only two more slight attacks of headache, and sight was, at the end of two months' treatment, $\frac{20}{30}$ in both eyes. All the time, however, the ophthalmoscopic condition remained perfectly unchanged, until the beginning of July, when, one day, there appeared a small hæmorrhage in the left eye, and when I then examined the urine there was some albumen in it. I thus was forced to change my diagnosis, at least so far as to allow the co-existence of a kidney-disease and tumour of the brain. That with regard to the kidney-disease I was not mistaken, was proven by the further changes. In the course of a few weeks, the characteristic hæmorrhages and patches appeared in the retina of both eyes, and when I examined the patient last, I found the urine to contain albumen to nearly a third of its volume. Of course, I then gave back the patient to her former physician, as being beyond my area of practice.

The strangest points in this case are certainly the attacks of localized headache, with loss of power over the tongue and numbness of the limbs. Had the kidney disease been farther advanced, and had general œdema been present, these symptoms might have been easily explained by uræmia. As this was, however, not the case, I am yet inclined to believe that we have here to deal with a co-existence of a disease of the brain and of the kidneys ; at least, I am at a loss for another explanation.

(To the Editor of the CANADIAN JOURNAL OF MEDICAL SCIENCE.)

CEPHALIC LOCK OF TWINS.

DEAR SIR,—I enclose the following rare case, never having seen or heard of a case of the kind, I have taken the liberty to name it myself. I copy from my midwifery case-book almost *verbatim.*

At six a.m., June 17th, 1874, I was sent for in great haste to a Mrs. Brown, living on the rear of lot 66, 1st con. King, on the road leading from Yonge Street to King Station. My brother, Dr. Lewis Langstaff, of Springhill, was in attendance. The patient, a stout woman, in her first confinement, had become delivered of one child, all but the head, which could be distinctly felt above the symphysis pubes, while the head of the second child had descended into the pelvis. I had the patient placed upon her back with the body of the child, already born, held forward over the abdomen, and applied the forceps to the head of the second child, which was easily delivered alive, after which, the head of the first child was brought away. Both children were large for twins.

The above treatment, it appears to me, would be the proper one in all cases of this kind, for the following reasons :—

1st. I had no hesitation on examining the case in adopting the course I did, although the head was not yet pressing forward the perineum.

2nd. There is almost always difficulty in putting anything back that comes down during labour.

3rd. Such a case would never occur, except when there is a large pelvis.

4th. The bony outlet of the pelvis is almost invariably larger than the brim, consequently, what passes the brim will pass the outlet.

5th. The perineum had already been distended.

6th. The labour terminated quickly.

We kept the patient under opium for a time and she did well.

Mr. Editor, I earnestly desire any information from yourself, or readers, on any case like the above, or a reference to where such a case is recorded.

Yours truly,

JAMES LANGSTAFF, M.D.

Translations.

From *Le Progrès Médical.*

Abortive Typhoid.

We extract from a review by A. Laveran, in the above journal, of a work by Prof. P. Lorain, entitled "*Etudes de Medicine Clinique*," the following passage:—

"The existence of abortive typhoid fever can no longer be doubted. The evolution of the fever, the slow defervescence by descending oscillations, the diarrhœa, the pain on pressure in the right iliac fossa, the presence of rose spots, all together seem to prove that these slight fevers which were formerly described under the names of *mucous fevers* or of *synochas*, and the duration of which did not exceed eight or ten days, should be annexed, in great part at least, to the history of typhoid fever. When a patient, who has just got over one of the slight fevers, succumbs by chance, we can assure ourselves that lesions of Peyer's patches exist, as we have recently had occasion to do. A knowledge of these abortive forms of typhoid fever is very important. Thus may be explained the immunity from typhoid fever enjoyed by many of the inhabitants of our large towns, who affirm that they have never had typhoid fever, (to the public, and to a large number of physicians, typhoid fever is always a long and serious affection,) but who have had mucous fever, or so-called synochas, to which they have attributed no importance. The introduction of these light cases into statistics enables us, moreover, to understand the discrepancies which exist between the figures of mortality furnished by different authors. The mortality of typhoid fever which in the time of Louis was about 36 per 100 is now-a days, according to the statistics of a large number of observers, no more than 7 or 8 per 100. Has typhoid fever become less grave, or is the credit of the change due to new therapeutic measures? The principal cause of these differences appears to us to reside in this fact, that a large number of physicians now-a-days include in their statistics the abortive typhoid fevers, (or tyhoïdette), which were excluded in the time of Louis.

From *Gazette des Hôpitaux.*

Two Formulæ of La Charite.

For that kind of vomiting called nervous, because it does not correspond to any organic lesion, there are already many formulæ; but how often do they fail! It cannot therefore be said that one more is too many, especially when it has been approved in the hands of so distinguished a practitioner as M. Empis. He directs the following mixture to be boiled for some minutes; strychnine, 1 centigramme ($\frac{1}{20}$ths of a grain); alcohol, 1 gramme; water, 99 grammes; then to throw the whole on a filter of paper, which retains the undissolved strychnine. Chemists pretend that this alkaloid is completely insoluble in water thus alcoholised; one of them even defies M. Empis ever to find the least change in weight in what he collects upon the filter. However, the liquid which praises through possesses a very great bitterness, which is proof enough that it has dissolved something. M. Empis usually gives this liquid in the dose of three tablespoonfuls in the day. It is not unusual to see the vomiting stop after the first. Another means not less relieving and also very efficacious is a method recommended by M. Laboulbène for destroying the oxyures or small thread-like worms infesting the anal folds, causing such insupportable itching, and which are so difficult to get rid of. This means consists in injections of syrup (or molasses) or glycerine. Every oxyuris touched by these liquids soon disappears, and as there is nothing irritant about them, they can be repeated often enough to exterminate every adult, and consequently destroy the race as soon as the eggs previously deposited shall have been destroyed.

Antidiarrhœic Potion.—(Archambault).

Tincture rhubarb.....	ʒiiss.	
Sulphate of magnesia.....	ʒiss.	
Anise water.....	ʒiss.	
Syrup of acacia.....	ʒss.	*M.*

A teaspoonful three times a day for a child of one year to control the obstinate diarrhœa sometimes observed after the weaning. Starch enemata.—*L'Union Médicale.*

A Point in the Pathogeny of Cardiac Affections.—(Potain.)

At the meeting of the *Association Francaise pour l'Avancement des Sciences*, in August last, M. Potain read a paper upon "A Point in the Pathogeny of Cardiac Affections," and especially of the right heart. In this connection he cited those facts, some of which have been recorded in a thesis by one of his students, Dr. Mahot, upon pulsations of the liver in tricuspid insufficiency. He pointed out the influence of affections of the gastrohepatic apparatus, and particularly of acute affections of the biliary passages, upon the heart, and quoted M. Gangolphe's work upon the transient cardiac lesions which are met with in jaundice. Acute affections of the biliary passages produce transient dilatation of the right heart; chronic lesions give rise to a permanent dilatation. M. Potain pointed out the analogy which appears to exist between the mechanism of cardiac dilatations of gastrohepatic origin and that of hypertrophy in Bright's disease. These lesions (except in the case of tricuspid insufficiency) do not give rise to real *bruits de souffle;* but extra-cardiac bruits are often met with. Digitalis in such cases gives bad results. M. Potain concludes that certain dilatations of the right heart are due to gastric and hepatic affections.

M. Gubler said that his experience in this respect enabled him to confirm these views.

From *Le Progrés Médical.*

Treatment of Scrofulous Ulcers by the Sulphide of Carbon.

Dr. Obissier dresses scrofulous ulcers with a mixture of 16 grammes (240 grains) of sulphide of carbon; 40 grammes (600 grains) of iodine, and 4 drops of essence of peppermint. The addition of the iodine and of the essence of mint to the sulphide of carbon has the advantage of masking the odour, which would render its employment as a dressing impossible. Under the action of the sulphide of carbon, the ulcers heal very rapidly, and Dr. Obissier has already published a large nnmber of observations favourable to this mode of treatment which may be applied to all scrofulides.—*Gaz. Med. Ital.*

From *Le Progrès Médical.*

On a Period of Arrest in the Course of Nasopharyngeal Polypi.

BY DR. LOUIS SAMONDES.

A discussion, which occurred in 1865 at the *Société de Chirurgie*, attracted the attention of the surgeons to an important peculiarity in the history of nasopharyngeal polypi, viz.: that these tumours, which constitute a disease of adolescence, often present an arrest in their growth when the persons affected by them approach adult age. It is this interesting point that Dr. Samondés, under the inspiration of Prof. Verneuil, has chosen as the subject of his inaugural thesis. He has gathered together a number of observations, which go to prove:—

1st. That if the patient is near adult age there is reason to hope for a period of arrest in the growth of the tumour.

2nd. That an operation practised at this age has large chances of being followed by a definitive success, either from the tumour not being reproduced after a radical ablation, or, the extirpation being only partial, from the remainder of the morbid mass persisting subsequently in a stationary condition and without repullulation.

3rd. That at 18 years the chances of cure are already numerous, and that they increase with the age.

Employment of Phenicated Collodion.

Dr. Karl Frank very highly recommends phenicated collodion (collodion to which 10 p.c. of a solution of carbolic acid has been added), the employment of which has given him excellent results, in wounds, crushings, erysipelas, and burns. He has also successfuly employed it in uniting by first intention the 3rd phalanx of the right index finger, which had been torn off by the bite of a horse, and which was suspended from the rest of the finger by a single strip of skin about one millimetre in breadth. In this case the wound was washed with cold carbolized water, the fragments accurately brought together, the finger covered with phenicated collodion, and the whole enveloped in cotton paper. At the end of four days union was complete, but the sensibility of the integuments of the finger only returned little by little.

From *Le Progrès Médical.*

At a meeting of the *Société Médicale des Hôspitaux*, M. Gérin-Rose read a note on a work of M. Duhomne, relative to the *differential diagnosis between diabetes and glycosuria*, of which these are the conclusions:—

1st. However efficacious the treatment by privation of feculent and saccharine substances may be in glycosuria, it is altogether powerless in true diabetes, which is, moreover, very rare.

2nd. In diabetics the quantity of sugar undergoes, from day to day, but very slight variations, whilst in glycosuria it may vary *toto cœlo*. Such is, according to the author, the pathognomonic sign of glycosuria.

3rd. In diabetes, the volumetric analysis by Fehling's solution is easy and without obscurity, whilst in glycosuria, on the other hand, the reactions are often obscure and difficult to observe. These difficulties in the reactions appear to be due to the presence in larger quantities of creatinic principles in the urine of glycosurics.

M. Gérin-Rose reported, in support of these conclusions, two which he had occasion to observe, and which represented these two opposite types.

From *Le Progrès Médical.*

DERMO-EPIDERMIC GRAFTS.

At the *Soc. de Biol.* on 22nd June, M. Maurel stated that he had had occasion at Guyane to try dermo-epidermic grafts upon the white, yellow, and black races of men. In all this operation had been successful; but on account of the thickness of the dermis it is rather difficult to take a graft in the black. Hetero-grafts (grafts made from one race to another) had given interesting results. Their efficacy for the cure of wounds and ulcers is constant. The pigment disappeared when a graft taken from a black was implanted on a white; the same does not hold for the negro and Hindoo. When both subjects are deeply pigmented the graft remains coloured; and even, by a sort of effect of contiguity, the pigment is reproduced over the wound in a very narrow zone around the graft, beyond that the cicatrix is white, as in fact is always the case in negroes when there has been a large loss of substance.

CAPILLARY TRANSFUSION.—(HEUROT.)

M. Heurot read a communication upon this subject. He uses a Pravaz syringe and a very small quantity of blood. M. Onimus said that almost as good results would be obtained by the injection of water: it is not the quantity of blood injected which is operative, but the circulatory stimulation induced by the injection of a liquid. M. Verneuil thought that transfusion was useless; the blood acted neither by its quality nor quantity; but, as M. Onimus had said, by its stimulant effect as so much liquid, and the injection of a few drops of ether would give as good results. This point, moreover, would be found developed in a thesis recently sustained at the Faculty by a Russian lady (Me. Okounkoff.) M. Cartez, while agreeing with these observations, believes that the effects of ether injections are less durable: he stated that Gaillard Thomas, who has done many transfusions in America, usually employs milk. M. Féréol was astonished at the considerable elevation of the number of globules in one of the cases narrated by M. Heurot (2,080,000 to 2,800,000) and at the rapidity of this increase. —*Le Progrès Médical.*

From *L'Union Médicale.*

A GLYCEROLE FOR IMPETIGINOUS ECZEMA.

White precipitate	ʒss.
Oxide of zinc	ʒj.
Glycerole of starch	ʒviij.

M.

A mixture designed for the treatment of impetiginous eczema of infants at the breast. Emollient baths. In cases where the eruption is seated on the hairy scalp, the hair should be cut and an india-rubber cap applied during the night, and in the morning the fall of the crusts is easily provoked by bathing with tepid water. —*Archambault.*

From *L'Union Médicale.*

HÆMOSTATIC COLLODION.

Officinal collodion ..	100	grammes,	(*circ* ʒiij.)
Carbolic acid	10	"	(ʒijss.)
Tannic acid	5	"	gr. lxxv.
Benzoic acid	3	"	gr. xlv.

M.

For external use.

From *Lyon Médical.*

WHY IS THE GREAT TOE A PLACE OF ELECTION IN FIRST ATTACKS OF GOUT?

After meeting the explanation of this fact given by Sydenham Boerhaave and Van Sevieten, viz., the slight vascularity and the exposure to cold and traumatism of this part, the author (Paul Pouzet) narrates the researches of Mr. Barchard. The latter, in the course of the year 1876, having examined the metatarso phalangeal articulation of the great toe in almost all the autopsies at the Bicêtre Asylum, has remarked that a condition of integrity of this articulation is the exception, and that erosion or softening of the cartilage is the rule. This result is besides conformable to Garrod's experience, who, amongst twenty individuals, found only six having the toes in a state of perfect integrity.

From *L'Union Médicale.*

PRURITUS VULVÆ.

Lotions of glycerole of cade are employed by M. Marius Rey in vulvar pruritus: 4 grammes (ʒi) of oil of cade to 16 of glycerole of starch is the formula he recommends. He makes use at the same time of a tonic treatment, of hip-baths, and of strongly laudanumised emollient injections.

From *Gazette Médicale de Strasbourg.*

GAUTIER (OF GENEVA) ON MEMBRANOUS DYSMENORRHŒA.

1. Dysmenorrhœa is not primitively an endometritis.

2. Dysmenorrhœa is in its nature comparable with ichthyosis of the skin, or of the lingual mucous membrane.

3. The treatment which appears to be indicated in the first place is dilatation or incision of the cervical canal: the success of remedies applied directly to the uterine mucous membrane is dependent upon the permanent enlargement of the orifices of the neck of the uterus.

INFLAMMATION OF THE NASO-PHARYNX.—Iodoform in ethereal solution applied with a brush, sponge, &c., or mixed with vaseline 5 to 8 grs. to ʒl, is said by Mr. Lennox Browne to be the best application.

THE CANADIAN

Journal of Medical Science,

A Monthly Journal of British and Foreign Medical Science, Criticism, and News.

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending reports of the proceedings of their Associations to the corresponding editor.*

TORONTO, NOVEMBER, 1878.

TO SUBSCRIBERS.

PAY UP!—ACCOUNTS HAVE BEEN MAILED TO ALL IN ARREARS. WE HOPE THEY WILL RECEIVE PROMPT ATTENTION.

THE LATE DR. WORKMAN.

Our obituary column last month contained the announcement of the death of Benjamin Workman, Esq., M.D., which took place at his daughter's residence in Uxbridge, Ont., on the 26th ult.

Dr. Workman, the eldest of a large family whose names stand high on the roll of Canada's honoured ones, was born at Lisburn, Ireland, 4th Nov., 1793. In the spring of 1819 he emigrated to Canada and settled in Montreal, at that time a very small town. Here he opened a school, where he educated many of those who subsequently have taken a very active part in building up the prosperity of our country, among whom may be mentioned Hon. Luther H. Holton and Hon. L. Wallbridge. In 1830 he became a teetotaller and so remained during the remainder of his life, publishing a newspaper for some time advocating the then unpopular doctrine of total abstinence. He was in business as a druggist for many years, took his degree as M.D. in 1852, and practised largely among those whose only pay could be their gratitude. Many a poor, suffering brother and sister have been lifted out of pain and penury by his self-sacrificing exertions. In 1856 he left Montreal and became Assistant Medical Superintendent

to his brother Joseph in the Lunatic Asylum in Toronto, where he remained till 1875, when his increasing infirmities rendered it necessary that he should retire to perfect rest of body and mind.

One of the first Unitarians who visited this country, he remained firm in his theological convictions to the end. He was connected with the Church of the Messiah in this city from its beginning; and the Unitarian congregation of Toronto owes much of its usefulness to his wisdom, earnestness, and untiring energy.

His life, simple and unostentatious, has yet had an influence for good that is beyond our computing; and he goes, full of years and honours, to reap the reward which awaits those who are faithful unto death.—*Montreal paper.*

TRANSACTIONS OF THE CANADA MEDICAL ASSOCIATION, 1878.

The Publication Committee of the Canada Medical Association are anxious to issue immediately a volume of Transactions containing the papers read at the Hamilton meeting. To cover expenses, at least, three hundred subscribers at $1.50 are required. The Committee earnestly hopes that the profession throughout the country will give their cordial support to this undertaking, believing it to be one deserving the co-operation of every intelligent practitioner.

Intending subscribers will please forward their names at once to the undersigned, as the publication cannot be proceeded with until the requisite number have been obtained.

(Signed,) WILLIAM OSLER, M.D.,
1351 St. Catharine Street, *Chairman.*
Montreal, Oct. 10th.

W. H. Aikins, M.A., son of Dr. W.T. Aikins, was, on October 11th, waited upon by about a hundred of his friends at his father's residence and presented with a suitable address on the occasion of his accepting a position in the Civil Service of the Dominion. Mr. Aikins has pursued the study of medicine for some years, and his popularity amongst his fellow-students is attested by the fact that a very large proportion of the assembly was made up of students of the Toronto Medical School. The party dispersed at a late hour after spending a pleasant evening.

INFANTS' FOOD.

We have received the following letter, in reference to a statement made in the paper on infants' food, which appeared in our October issue. We shall be glad to receive the opinions of the profession on the point in dispute. Dr. J. Lewis Smith of New York, in his work on "Diseases of Infancy and Childhood," says:—

"The shops contain various preparations of food for infants, and most of them have been employed in the institutions of this city, sufficiently to ascertain their effects. The one which has given most satisfaction is known as Nestle's Lacteous Farina, prepared by Henry Nestle, a Swiss chemist. * * * *

Nestle's food is, however, expensive, and although infants thrive well on it in the cooler months, I am of opinion, from my own observations, that in the hottest weather, when diarrhœal affections are so prevalent and fatal, it has too laxative an effect."—*J. Lewis Smith*, pages 59 and 60, Edition 1872.

(To the Corresponding Editor of the Canadian Journal of Medical Science.)

DEAR SIR,—We are obliged to you for the copy of the CANADIAN JOURNAL OF MEDICAL SCIENCE, and have read with interest the valuable paper by Dr. A. H. Wright. The reference to Nestle's Food as slightly laxative and not being suitable where there is a tendency to diarrhœa is singularly incorrect, as far as practical experience in this country and Europe is concerned. We send you a pamphlet by Prof. H. Lebert; also, a paper containing testimony of men whose reputation is, we have no doubt, well known to you, and is in direct contradiction to the opinion of Dr. Wright. If you would refer to Vol. 7 of Ziemssen's Cyclopædia of the Practice of Medicine, translated from the German, you will find strong testimony in behalf of Nestle's Food in cases of Sporadic Cholera. We mention these facts, believing you have no other object in view than the furtherance of the truth in reference to this important question of food for infants, and will be glad if you will correct the erroneous impression Dr. Wright may have given in connection with Nestle's Food.

Yours truly,
THOS. LEEMING & Co.,
Montreal.

Book Notices.

Annuaire de l'Université Laval pour l'Année Académique 1878-79, *Quebec.*

Tenth Annual Report of the Toronto Eye and Ear Infirmary, 108 *Shuter Street*, 1878.

Ecole de Medicine et de Chirurgie de Montreal. Session 1878-79.

Annual Address delivered before the Canada Medical Association, Hamilton, Sept., 1878. By Joseph Workman, M.D., President.

Contributions to the Pathological Anatomy of the Eye. By Dr. Adolph Alt, of Toronto. Reprinted from the *Archives of Ophthalmology and Otology*, Vol. VI., Nos. 3 and 4.

Annual Reports of the Supervising Surgeon-General of the Marine Hospital Service of the United States for the fiscal years 1876 and 1877. John M. Woodworth, M.D., Washington, Government Printing Office, 1878.

Playfair's System of Midwifery. Second American, from the second revised London edition. 8vo., pages 639. Philadelphia: Henry C. Lea; Toronto: Hart & Rawlinson.

Of making many books there is no end, and the issue of new editions is a weariness to the pocket, but if all books issuing from the medical press were of the character and value of Playfair's midwifery, we are bound to say the old axiom would lose much of its force. This work bears the same relation to the obstetric literature of to-day, that Tyler Smith's lectures did to that of his time being the best work on the subject now published in the English language. It is written in a clear, pleasant style, without that verbosity which characterizes some modern and highly pretentious works. The author is quite up with the times, both in practice and theory. He adopts exfoliation of the mucous membrane in menstruation, as taught formerly by Tyler Smith, and more recently by John Williams. He approves of the early use of the forceps in delayed labours, and strongly advises the administration of chloral in 15 gr. doses every fifteen minutes till three doses are given, for the relief of the cutting pains of the first stage. It is the best text-book we have for students, and sufficiently full of detail to supply all the wants of the practitioner. We would gladly see it in the hands of all who practise midwifery.

We notice very few typographical errors, the most important being that in connexion with wood-cut 98, page 264, from Hodge, which represents the head coming through the pelvis in the second position, but erroneously calls it the third.

We have to take exception to the author's account of the expulsion of the placenta when he says "that if it be allowed to come away without traction on the cord, the uterine surface is generally expelled first." We have carefully observed this point since it was noticed by Leishman and Matthews Duncan, and have satisfied ourselves that while it does often come away thus, it also comes away with the fœtal surface first in by no means a small proportion of cases, even when no traction whatever has been made on the cord; and we believe that the manner of its expulsion depends quite as much upon the site of its attachment to the uterus as upon the application of force.

We believe, that if the placenta be attached to the uterine surface, in what may be called its central zone, or below it, the mass will be expelled either with the uterine surface in advance, or folded laterally, presenting its edge first, as described by the authors named, but if it be attached to the fundus or above the middle of the uterine wall, it is more apt to come away with the fœtal surface first just as if traction had been exerted through the cord; and moreover, we think the adhesion or separation of the membranes on the shortest side between the placental site and the os uteri, as the placenta comes down, determines whether the fœtal or uterine surface shall come first.

We fully endorse what the author says in regard to the removal of the ovum in protracted abortion, when he recommends the administration of chloroform and the introduction of the whole hand into the vagina, and the fingers into the uterus. "In this way," he says, "the complete detachment of the ovum can be far more safely and readily effected than by using any of the many ovum forceps which have been invented for the purpose."

Barnes on the Medical and Surgical Diseases of Women. Second American, from the second enlarged and revised London Edition. In one handsome octavo volume of 784 pages. Philadelphia: Henry C. Lea; Toronto: Hart & Rawlinson.

The reputation of the author is such as to warrant the expectation of a work of very high order, and there is no doubt but the volume before us amply sustains the high estimate we have formed of its author. Unlike many other works on the subject, it is useful both to the lecturer and practitioner. The style is pleasing and the typography good. The writer is emphatic in regard to the dangers of intra-uterine injections, and we think he is right. His chapter on gynæcological instruments and their use will be found very useful to the young practitioner, but where all is so good it is needless to specify parts.

Dr. Barnes stands at the head of his profession in the old country, and it requires but scant scrutiny of his book to show that it has been sketched by a master. It is plain, practical common sense; shows very deep research without being pedantic; is eminently calculated to inspire enthusiasm without inculcating rashness; points out the dangers to be avoided as well as the success to be achieved in the various operations connected with this branch of medicine; and will do much to smooth the rugged path of the young gynæcologist and relieve the perplexity of the man of mature years.

New Books in Press.—Mr. Henry C. Lea, of Philadelphia, has in preparation for early publication:—A National Dispensatory, by Stillé & Maisch; Clinical Manual for the Study of Medical Cases, by James Finlayson, M.D., of Glasgow; Principles and Practice of Surgery, by Ashurst, (Second Edition); Principles and Practice of Gynœcology, by Emmet; Practice of Surgery, by Bryant, (Second Edition); A System of Human Anatomy, by Harrison Allen and E. O. Shakespeare, of Philadelphia; and a translation of Cornil & Ranvier's Manual of Human Histology, by E. O. Shakespeare, M.D., of Philadelphia.

Obituary.—Mr. John Hilton, F.R.S., died last month, aged 74.

Miscellaneous.

To Destroy Moths in Carpets.—Lay a wet sheet or other cloth upon the carpet, and then pass a hot flat iron over it, so as to convert the water into steam, which permeates the carpet beneath and destroys the life of the grub.

Personal.—Dr. Rolph Lesslie, of Toronto, who acted as Surgeon in the Turkish army during the late war, paid a short visit to his friends in Toronto last month. He has returned to Vienna to devote the winter to study. The Sultan of Turkey has conferred the Order of Mejidié on Dr. Lesslie.

Diagnosis of Doubtful Dislocations.—Middledorpf employs a long slender needle to diagnose doubtful luxations of the shoulder. It is pushed below the acronion towards the glenoid cavity. If dislocation exist it will enter easily and meet with no obstruction till it reaches the glenoid cavity. If there is no luxation it will strike the head or neck of the bone.

Removal of Lower Portion of Left Lung.—An Indian boy was shot by an arrow between the fifth and sixth ribs, just to the left of the median line. The barbed arrow-head, when withdrawn, carried with it through the orifice quite a large portion of the lung. This (four and a-half inches long, two and three-quarters broad) was ligatured and removed, the stump washed and returned, and the wound sutured. Complete recovery followed.—*Cincinnati Lancet and Clinic.*

Lactopeptine.—Our readers may remember that last winter we published the experience of several physicians quite favourable to the above-named preparation, (Vol. xxxvi. p. 245). Since then we have employed it in several cases of obstinate dyspepsia, and have been gratified, even surprised, at the very excellent results obtained in the great majority of cases. We think it decidedly superior to any form of pepsin, "pure and simple," we have yet exhibited.—*Medical and Surgical Reporter, Philadelphia.*

Operation for the Cure of Irreducible Luxation of the Shoulder.—H. Burckhardt, in a case of dislocation of seven months' standing, made an incision down to the joint, cut the various adhesions, and reduced the luxation. Three months later, the hand could be placed on the opposite shoulder, and behind on the crest of the left ilium. The patient eats and arranges her hair with this hand. Only rotation outwards is minimal.—*Cbl. f. Chir.*, 1878, p. 376.

A Novel Urinal.—Dr. Packard, of Philadelphia, has lately attended a lady suffering with a large abscess, where the use of the bed pan for micturition was impossible, and catheterism annoying, when the patient herself suggested the following expedient: She had a large coarse sponge enclosed in an oiled silk bag, and applied to the parts; it absorbed the urine perfectly, kept the bed dry, and contributed greatly to the comfort of the patient. He has since used the plan in other cases, with much satisfaction.

Treatment of Colles' Fracture.—Dr. Pilcher, of Brooklyn, has treated forty-nine cases of Colles' fracture without splints. He bends the hand and wrist sufficiently backward to free the fragments and relax the tense periosteum, then makes slight extension with pressure on the dorsum, concluding with placing the forearm in the normal position. A strip of adhesive plaster is then wound round the wrist as a support—massage and motion of the hand were begun after the third day.—*N. Y. Med. Jour.*

Dialyzed Iron.—Prof. Gowers (*London Practitioner*, July, 1878, p. 1) has, with the aid of the hæmacytometer, counted the red corpuscles of patients before, and at various periods after, taking this preparation. In the first case, an anæmic woman, the red corpuscles rose from 46 to 102 per cent. of the normal, in 34 days. In the second case, an extremely anæmic girl, the red corpuscles, before treatment, amounted to 26 per cent. of the normal, and after taking iron for 63 days to 92 per cent. Under the influence of the catamenia the number fell to 60 per cent., then rose to 70 per cent. The iron was now discontinued for 28 days, and at the end of that time the number of corpuscles had fallen to 56 per cent. The iron was resumed, and 7 days after the corpuscles amounted to 70 per cent. of the normal.

Treatment of Detached Retina.—Cohnheim has employed the method of drainage by a loup of gold thread passed through the sclerotic and under the retina, in four cases of detached retina, with excellent results. As soon as the retina has become reapplied to the choroid, it becomes capable of perception even after the lapse of three years. But only the sense of space returns, not that of colour. In no case was any inflammation of the eye or impairment of the preexisting amount of vision observed.

Vesical Epithelium.—M. Livon made, in his own name and in that of M. Cazeneuve, a communication upon the physiology of vesical epithelium. He recalled the theory of Küss and the experiments of Susini, and indicated the experimental processes employed by him and M. Cazeneuve. The experiments were very numerous (more than sixty), and the two experimenters have reached the conclusion that the vesical epithelium absorbs nothing in its normal condition but that absorption may occur when the mucous membrane has been injured.

M. Gubler said he was pleased to observe that the results of experiment coincided with those of clinical observation, and recalled the analogous conclusions of Alling's thesis.

M. Aubert (*de Lyon*), who has been, and is still, engaged upon the subject of absorption by epitheliums, believes that the glandular orifices are the true passages for this absorption, which is consequently absent in permanent epitheliums without glands.—*Le Progrès Médical.*

Fatty Effusion into the Pleura.—Dr. Boegehold, of Berlin, reports a case of pleural effusion in which when tapped the fluid was found to be alkaline, opaque, dark yellow, and inodorous: sp. gr. 1023. On standing for about half an hour there formed on the surface, a thin, yellowish, creamy layer, consisting of fatty granules intermixed with larger fat globules. The patient died. On post-mortem examination

the pleural surface was found to be dotted with gray or yellow prominences of various sizes from a pea to a shilling, their apices flat and ulcerated. The stomach and pancreas were cancerous. In several places near the pleura and lymphatic glands the large cells contained oil globules, and in the gastric tumour the cells had almost wholly undergone fatty degenera tion. The pleural ulcerations consisted mainly of granular matter and large cells containing fatty globules, and the fatty granules collected on the pleural fluid must therefore be regarded as the *débris* of broken-down cancer cells.

Do Bacteria Exist in Living Animals?—In the able lectures on the Infective Processes of Disease, delivered this year by Dr. Burdon Sanderson as Brown Professor, and published in January in the columns of the *British Medical Journal*, he quoted and appeared to confirm the experiments of Dr. Tiegel, of which he accepted the conclusion, that bacterial germs exist in the interior of the glandular organs of healthy animals during life. The question is one of the highest scientific interest, and of direct application to the principles and practice of antiseptic surgery; since, if wounds are liable to bacterial contamination from within, the basis of antiseptic precautions addressed *ad externam* is very sensibly weakened. Mr. Chiene of Edinburgh and Dr. Ewart of University College have, therefore, repeated Tiegel and Sanderson's experiments *under antiseptic* precautions of a simple kind; the result is to show, both by negative results and by severe test experiments, that in the organs of healthy rabbits, removed immediately after death with antiseptic precautions, no bacteria are found, and that it may fairly be concluded that neither bacteria nor their germs exist in the healthy organs of these animals during life. By way of indicating the relation of their researches to the germ-theory, the authors of the research point out that if neither bacteria nor their germs are contained in the healthy blood, milk, or other secretions (as Professor Lister has proved in his address, published in the *British Medical Journal* of October 6th, 1877); nor in the healthy liver, spleen, kidneys, pancreas, lymphatic and other glands, as the present researches seem to prove—then there is no possible channel left through which bacteria can reach a wound from within; so that, in order to prevent putrefaction and the evils which follow it, it is only neeessary to adopt an antiseptic method which will prevent living bacteria or their germs from entering the wound from without.

Antidote to Arsenic.—It has been noted by Rouyer that freshly precipitated sesquihydrate of iron, although an antidote for arsenious acid (arsenic of the shops), fails entirely to counteract the action of arseniate of soda or arsenite of potassa (Fowler's solution), but that a mixture of a solution of the sesquichloride of iron and the oxide of magnesium will counteract the effect of these salts, as well as the arsenious acid itself, and hence this mixture is always to be preferred to hydrate in cases of poisoning by arsenic. The officinal solution of the sesquichloride of iron should first be administered, and afterwards the magnesia. In one hour after the administration of the antidote, a cathartic should be given. In all cases acid drinks (such as lemonade) are to be avoided, since the compounds they form are soluble.—*New Remedies.*

In the *Maryland Medical Journal* for June, 1878, Dr. Chisholm relates a case of a man who had taken two drachms of morphia at once without any bad effect. A child of eight months regularly took two fluid ounces of Magendie's solution of morphia in the twenty-four hours. These are very remarkable instances of the tolerance of opium following its continued use.

Births, Marriages, and Deaths.

MARRIAGES.

At Walkerton, on Oct. 3rd, J. J. Cassidy, M.D., Toronto, to Appie A., daughter of Anthony Mesner, of Walkerton, Ont.

At Trinity Church, Gouverner, N.Y., on September 19th, Edgar H. Merrick, M.D., of Gananoque, to Sarah Elizabeth, daughter of the late Thomas Carpenter.

DEATH.

At Uxbridge, on October 15, Katharine Penelope, wife of Dr. Nation.

THE

Canadian Journal of Medical Science.

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U. OGDEN, M.D., *EDITOR.*

R. ZIMMERMAN, M.D., L.R.C.P., London, *171 Church Street Toronto, Corresponding Editor.*

SUBSCRIPTION, $3 PER ANNUM.

☞ All Communications, Letters and Exchanges must be addressed to the Corresponding Editor.

TORONTO, DECEMBER, 1878.

Selections: Medicine.

PROPHYLAXIS OF HEMIPLEGIA.

BY W. H. THOMPSON, M.D.

In no class of diseases is the study of their etiology so important as in nervous affections, because the majority of them are not primarily nervous in their origin, but rather are simply nervous sequelæ of diseases occurring wholly in different structures. Their effects on the nervous system, however, are such that its symptoms completely overshadow everything else and thus lead naturally to their too exclusive consideration, especially as regards treatment. A man, for instance, who survived for a while the lodgement of a bullet in his brain, would scarcely be rated as an example of nervous disease, and yet in what respect does his case essentially differ from one of hemiplegia due to the sudden lodgement in a cerebral artery of a vegetation detached from a cardiac valve, except that in the latter the foreign body came from within rather than from without? So, also, an apoplectic clot is almost always the result, not of any nervous disorder, but of vascular disease. Apoplectic hemiplegia, therefore, requires for its proper understanding, by the practical physician at least, not so much a minute acquaintance with the localization of nerve-centres and their functions, as a knowledge of the effects, for example, of disorders of the kidneys upon the texture of the arteries. Again, in syphilitic hemiplegia, it is not the nerves, but rather the connective tissue, or else the membranes of the brain, which are involved, and from which the entire trouble proceeds, producing nervous symptoms either by exudation or effusion. Hence, in most paralyses, the nervous lesion is secondary to primary disease elsewhere. Etiologically, therefore, we may divide the common forms of hemiplegia into three classes. 1. Embolic; 2. Syphilitic; 3. Vascular.

Embolism, producing hemiplegia, is most commonly due to one of those little wart-like formations caused by endocarditis upon a heart valve, which, after breaking its pedicle, is washed up to the circle of Willis. If the plug passes beyond the circle of Willis it is then oftenest arrested in the left middle cerebral artery, with results more disastrous than if it occluded a much larger vessel below the great arterial ring. The reason of this is, that the arteries of the brain do not anastomose above the circle of Willis, so that if one of them become closed, those parts of the brain supplied by it can get no help from their neighbours and are hence likely soon to soften.

There are necessarily no premonitory symptoms in this form of hemiplegia. It comes without giving any warning to the patient or affording to the physician any signs, other than if he knows his patient has roughened valves, he may suspect a liability to it, but no more. Nothing, therefore, can be done to prevent its occurrence. We may be tolerably assured of embolism in any given case, if there be a heart murmur, if there be a healthy radical artery, if the attack was extremely sudden, if the patient be comparatively young, and if the consciousness is intact, which is often evidently the case, though there be total aphasia. But on the other hand, the absence of these elements does not disprove it.

In striking contrast to the embolic form, syphilitic hemiplegia is almost always preceded by significant symptoms, valuable both for diagnosis and treatment. Of these the most important and constant is headache, both preceding and following the attack. It is rarely absent from one of these periods and most commonly belongs to both, though in some cases more severe before the attack, in others, afterwards. It differs from the slight temporary headaches which may presage vascular hemiplegia in being far more constant and severe, sometimes agonizingly so, continuous and generally worse at night. Another common symptom preceding this form of hemiplegia is that of slight, usually transient, local paralyses occurring in different portions of the body. The uvula may be found out of line, or the tongue protruded to one side with a thickened articulation, or else there may be a little ptosis of one eyelid, or slight strabismus, or numbness or weakness in parts of one limb, etc. Another peculiarity of syphilitic hemiplegia is that it may develop slowly, beginning, for instance, in the morning and not becoming complete till evening; and lastly, it quite often occurs without loss of consciousness. Sometimes, however, it begins with, or is preceded by, an epileptic fit or fits. Here again headache is a valuable aid in diagnosis, for syphilitic epilepsy differs from the common form of that disease in a permanent sense of discomfort about the head during the intervals between the attacks. Like other syphilitic neuroses, hemiplegia is a late manifestation of that disease, often only after years have elapsed since the primary infection, which, moreover, may have had but slight secondary symptoms following it. But the prognosis in syphilitic hemiplegia is much better, as a rule, than in the other forms, and you may sometimes use this fact successfully to quicken the memory of a patient who has denied before that he ever put himself in the way of contracting syphilis. Iodide of potassium, of course, should be used unsparingly, from drachm doses upwards, with $\frac{1}{20}$ gr. doses of corrosive sublimat, and to sustain the patient against the iodide I would recommend,

℞. Ac. phosphor. dil..... ʒvi.
M. Syr. hypophosphit. ad..... ʒiv.
S.—Two teaspoonfuls in water, t.i.d.

But it is especially the precursors of vascular hemiplegia, which you should learn well and carefully attend to. They are not so pronounced, and are more complex than in the syphilitic form, but nevertheless, the more important of them are rarely absent, and when recognized in time may be of unspeakable importance in leading to measures which will prevent a misfortune worse often than death itself. Vascular hemiplegia, I think, scarcely ever occurs until long after the existence of signs which are as readily appreciable, and even more indicative of danger, than cough, for example, is indicative of the approach of phthisis. As phthisis has both its rational and its physical signs connected with pulmonary organs, so the vascular disease which causes hemiplegia has its rational and its physical signs; the first consisting of nervous symptoms, the latter of structural changes in the vessels.

Of the rational or nervous symptoms you will have first vertigo. This is usually slight, not often with reeling, coming on suddenly; not, like other kinds, oftenest on first rising, but more commonly some time during the day, not long after a meal. But I must tell you that vertigo is an exceedingly intricate symptom, too much so for us to complete the topic now. But before you set down vertigo as threatening apoplexy, examine the ears. Some of the worst cases which I have seen have been caused by plugs of hardened wax, and so may any pressure transmitted to, or arising within, the labyrinth, make walking extremely unsteady from dizziness. Some disorders of the ocular muscles cause vertigo also, while the giddiness caused by fermentation in the alimentary canal, or "biliousness," as the patients term it, is easily distinguished by the presence of other gastric symptoms, such as flatulence, acidity, qualmishness, etc.

Another much more constant symptom is early waking in the morning, with slight headache, which passes off after rising. When a patient finds that he awakes earlier than usual, and finds it hard to sleep again, that this from being occasional is becoming habitual, and that his head feels uncomfortable until he gets up, weakening of the cerebral arteries may be suspected.

Cramps in the calves of the legs, occurring generally in the morning, but also at other times, are of even more serious import than the preceding, especially if these are also present. A dread of descending stairs is common also, but is rather a sign of senility than of hemiplegia.

Of mental symptoms, the most characteristic are sudden loss of memory, sudden confusion of ideas, and sudden loss of words. When the memory is at fault, it is not that of old, but of recent impressions, exemplified in telling a story or relating an event twice over, surprising friends by not recalling what happened a few days before, and then having it suddenly recur to him, etc. Confusion of ideas, the patient of course is himself aware of, and on account of its strangeness he is apt to be much alarmed by it. The loss of words is also of a special kind, not at all like the common experience of momentarily being at a loss for the right word, when we send the mind hunting one up, but the patient feels that some very ordinary word has suddenly escaped him, and with it also the idea he had and was about to express, io that he asks, what was I saying? All these mental derangements are palpable to the patient himself, and often lead to a too well-grounded foreboding of impending misfortune, but as they may also occour at any time of life from temporary states of cerebral anæmia or exhaustion, they are not conclusive by themselves, any more than cough is conclusive of phthisis, but still they are to be carefully noted. Mental strain, impoverished blood, or great loss of it, etc., produce just such symptoms, the result to the nerve-centres being the same, only that in the vascular disease, which threatens apoplexy, we have a more permanent cause of anæmia of those centres from narrowing or occlusion of great numbers of the blood vessels.

You may then begin the examination for the physical signs of the vascular disease by inspection of the circulation of the skin; the back of the hands affording the most convenient locality. The most common as well as significant appearance is a mottled skin, composed of larger spaces of a marked unnatural whiteness, interspaced with smaller ones pigmented brown or olive-coloured. Should you rub the hand smartly, you can produce little more than an evanescent blush in the whitened portions, its quick fading indicating the paucity of permeable capillaries. For the same reason, the skin, where it is not exposed, is nevertheless altogether too white and scurfy. This state of affairs readily affords the explanation of the characteristic pulse, which you will soon have to examine.

You cannot now be too particular in the investigation of the state of the arteries any more than you can be too particular when you are testing a lung. Just as you should complete percussion before you begin auscultation, so the first thing to do with the radial is to feel it, without allowing your attention to be drawn off to the pulse-beat. If the radial artery is healthy, you can scarcely feel it at all; I mean distinguish it in its bed from the surrounding structures, and you judge of its presence there almost wholly from the throb of the pulse. But I doubt if such an artery as that existed in the body of a patient with vascular hemiplegia for years before his accident. Instead of that, the coats of his radial gradually lost their pliability, then become more and more thickened, growing harder all the time, until a year or so before the "stroke," that artery could have been felt more like a strong pulsating cord which you could roll over in its bed, perhaps giving to your fingers the impression of a wire under the skin. If now you note for a moment how far along the forearm you can trace the vessel, you may find it distinguishable half way up, and by the pulse-beat, even two-thirds the way to the elbow. What a departure this is from the healthy state, you can learn by the first examination you make of a person with healthy arteries, when the vessel becomes indistinguishable within an inch from the wrist. The next point to note, whether besides being hard, the artery is uniform in its calibre, or the reverse. In many cases of arterial disease, and especially in old persons, it may be very irregular, even to the extent of resembling a string of beads rather than like a smooth cylinder. This is due to atheromatous or calcareous patches of degeneration in its course, and as just stated, they are particularly frequent in the aged; but I believe that in the majority of

cases of dangerous arteries you will find nothing of the sort in these radials: the vessels being simply too large, too hard, and plainly inelastic. You may then observe the same state of things in the temporals, but in addition you will note these vessels to be extremely tortuous, and in bald persons sometimes coursing up the scalp like cork-screws The extent of this twisting is pretty conclusive of the degree of obstruction which the blood within the artery has to overcome in the diseased arterioles and capillaries beyond. Such radial or temporal arteries of course, are never single in these morbid characters, for like changes are much more complete in the cerebral vessels, owing to the extreme delicacy and comparative weakness of the connective tissue which surrounds and supports them.

You are now ready both to recognize and understand the import of the peculiar pulse of a person who is in danger of a hæmorrhage into his brain. You should lay the tips of your four fingers on the radial, and note if by moderate pressure the pulse is arrested or not under the upper or first finger. A little practice will show you that in distinction from a healthy pulse, no matter how strong that be, the pulse of such a patient is not easily brought to a stop, but very probably is appreciable by all the four fingers. In a healthy pulse, on the other hand, though beating quite forcibly, as just after exercise, the elastic artery can be quickly compressed, so that the stroke beats strongly against the first finger, but does not pass under it to the remaining fingers, while with this morbid pulse you have to use twice the amount of pressure to arrest the wave. Now, an incompressible pulse like this, occurring in a thickened artery, is often mistaken for a strong and full pulse, whereas it may be quite the reverse of either. It is taken for a full pulse by those who are misled by the touch of a hypertrophied artery, whose real calibre is much less than natural, and an erroneous impression of strength is easily given also by the continued beat or seeming resistance under pressure. In the case of a patient fatally sick with Bright's disease, I once knew a distinguished physician pronounce a favourable opinion as to immediate risk, on acconnt of his "fine, full, healthy pulse." As the strength of any pulse is wholly derived from the heart, this gentleman would have discovered, if he had listened there, that the heart was beating so feebly that no impulse, and scarcely a first sound, could be made out. If there be some febrile excitement in a patient with an incompressible pulse, you may be quite puzzled sometimes to distinguish it from a strong pulse. But a purely febrile pulse ought to be a compressible pulse, no matter how strong it be, and the heart ought to give you a clearer impression of strength than the pulse; nor will fever ever harden an artery, so that you can feel it in its bed.

(To be Continued.)

PROGNOSIS AND TREATMENT OF PROGRESSIVE ATAXY AND SPASMODIC SPINAL PARALYSIS.

BY JULIUS ALTHAUS, M.D., M.R.C.P. LOND.

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The *prognosis* in both lateral and posterior sclerosis is, in a general way, unfavourable, as soon as the symptoms have become fully developed, yet every physician who has seen much of these diseases knows of some cases in which complete, or almost complete recovery has taken place. Mostly, however, we must be satisfied if we succeed in arresting the progress and relieving the symptoms of the complaint. The prognosis depends greatly upon external circumstances and the mode of life adopted by the patient. Those who have to work for their living are worse off in this respect than those born with the silver spoon in their mouths; and the rake dies more quickly than the philosopher. Two of the most marked cases of ataxy which I ever saw, occurred, one in a member of the hereditary branch of the British Legislature, who, being of slight physique and calm and fastidious by temperament, surrounded himself with everything that may adorn life, and found consolation for his infirmity in the arts and literature. He lived to the age of sixty, after having been subject to the complaint for upwards of thirty years, and having hardly ever experienced really severe suffering. The other case was that of a hot-tempered Irishman, who,

after having made a fortune in Australia, returned to England to spend his life in the wildest excitement, intrigues, and debauchery of every description. He died within four years from the outbreak of the malady, after having undergone the most frightful tortures which man may be called upon to endure, and after having seen an originally herculean constitution undermined and wasted in a comparatively short time.

The treatment of both diseases must be persevered in systematically for a considerable time if any real success is to be achieved. Rest is of great importance, and we must endeavour to arrange all conditions of life as favourably as possible for the patients. Of specifics we have two, viz., nitrate of silver and ergot of rye. Some great cures have been effected by the use of either of these medicines, more particularly in the earlier stages of the complaint; but, in the majority of cases, and at a later period, their effect is disappointing. Nitrate of silver should be given in doses of from $\frac{1}{8}$ to $\frac{1}{2}$ grain, and must be stopped after 120 grains have been given. The urine should be tested frequently and the remedy omitted if albuminuria be induced by it. Ergot is given either as Bonjean's ergotine, in doses from 1 to 5 grains, or as the liquid extract, in doses from 20 to 120 minims. I have completely cured two cases of ataxy with drachm doses of the latter preparation, three times a day; and at no period during its administration, which in one instance extended to six, and in another to eight months, were there any symptoms of ergotism. Damiana likewise appears to have a special influence on the cord in these cases; I give it in doses of 20 to 60 minims of the liquid extract. Iodide of potassium, strychnia, and arsenic are generally ineffective. The constant galvanic current is useful for the relief of pain, paralysis of the ocular muscles, anæsthesia, and vesical debility. If used sufficiently early, it appears capable of arresting the disease. It is, however, essential for success that a gentle and perfectly steady current should be used, by large electrodes, for a short time, and that all shocks, Voltaic alternatives, or powerful and prolonged applications be avoided. A judiciously directed hydrotherapeutical treatment, and the thermal brines of Rehme and Nauheim in Germany, and Droitwich in England, are also useful. For the relief of the pain of ataxy, I can strongly recommend the salicylate of soda, in twenty grain doses several times a day. It often acts better than the hypodermic injection of morphia or chloral, but is likewise, as all other remedies, occasionally disappointing. Special attention must be given to the state of the bladder and rectum. For catarrh of the bladder with ammoniacal decomposition of the urine, the salicylate of soda in the doses just mentioned is useful; while for constipation, the Hunyádi János water and allied remedies may be given. Where symptoms of general debility and impaired nutrition are prominent, phosphorus and cod-liver oil, alone or in combination, have proved to me most valuable.

For lateral sclerosis, ergot and nitrate of silver likewise deserve a trial. For the relief of the muscular rigidity and twitches, the bromides of sodium, potassium, and ammonium may be given. I have sometimes usefully combined them with extractum physostigmatis, in doses from $\frac{1}{8}$ to $\frac{1}{2}$ grain, and succus conii. The motor debility is often successfully combated by galvanization of the cord and suffering nerves; and the use of sulphur baths at a temperature of 98° or even 100° may prove serviceable.—*American Journal of the Medical Sciences.*

Good medical conduct needs a rare mixture of self-respect and humility, of unselfishness and reverence for others, of acuteness and simplicity, and of all the magnanimity that comes of the largest knowledge of human nature. This is a great demand. But there is something in the great school of medical education and medical practice which begets it alike in great physicians and in general practitioners.—*London Lancet.*

The London *Lancet* says that there is reason to believe that it is the intention of Mr. Callender, of St. Bartholomew's Hospital, to proceed to the United States early in December, with the intention of seeing the practice and teaching arrangements of the distinguished surgeons of America.

Surgery.

THE USE OF LINSEED AND LINSEED OIL AS THERAPEUTIC AGENTS IN DISEASES OF THE SKIN.

BY S. SHERWELL, M.D.

Every dermatologist must have had cases in which the exhibition of the fats and oleaginous foods has been indicated; and has had sometimes to lament that cod-liver oil disagreed with his patient. Such has been my experience, and I believe I find in linseed oil a more assimilable hydrocarbon. My usual methods of administration are three-fold.

First mode. The patient to carry about with him, in pocket or other receptacle, a few ounces of the seed in its natural state, from time to time taking a convenient quantity into his mouth and masticating it thoroughly and swallowing. In this way an average individual will probably take an ordinary teacupful in a day. Bombay or Calcutta seed, which I recommend, is nearly twice the size of that usually sold, and contains a much larger percentage of sweeter oil (nearly 30 per cent.). This is, in my experience, better assimilated than cod-liver and other oils, and does not cause the same gastro-intestinal disturbance.

Second mode. Grind the seed somewhat coarsely in a little mill; take one ounce or more of this meal and stir it up with warm or cold milk, to form as it were a porridge.

Third mode. Prepared in the form of bread. This linseed bread is made by mixing the meal with ordinary flour in any proportion, say from one to three-fourths, and is prepared in the same manner that ordinary bread is made.

I believe the first two modes of administration are the best. The second is to be preferred for women, children, and invalids.

In addition to the general nutritive qualities of this seed and oil, I claim for it specific virtues on the skin, especially in dry and harsh, or irritated conditions, as in pityriasis rubra, icthyosis, eczema, etc. I believe it has a specific direction in favour of the sebaceous glands, and that their secretion is increased and improved thereby, as is shown, after a short time, in the gloss of the hair, and the lubricity and flexibility of the epidermis itself. Used externally and alone, linseed oil is one of the most soothing applications I know of. It has not that tendency to decomposition or rancidity that oleum morrhuæ and oleum olivarum so markedly possess.

I will now give a brief resumé of some cases.

Case 1.—Pityriasis rubra. Annie S——, æt. 9. Father died of phthisis. No other history of diathesis in family.

Sept. 9, 1876. Found patient had been suffering some two or three months in bed, covered with the characteristic dry, scaly eruption from head to foot. I was told that she could be tracked from room to room by the scales falling off, from attrition of the clothing; they could be taken up by the handful from the bed. I used iron, strychnia, the mineral acids, and sometimes Fowler's solution, but above and beyond all, cod-liver oil, both internally and as inunction. For nearly six months the case slowly progressed towards cure; at length, as cod-liver oil was a somewhat expensive article, I substituted linseed and linseed oil, internally and externally. The change for the better thereupon was rapid, and a complete cure followed in six weeks from the date of first using. She gained more flesh in the short time in which she used linseed oil than in all the previous months. She had a slight relapse about four months ago, commencing on the lower limbs and back of neck and head. It yielded quickly to the same treatment, and she is now a well-nourished, healthy-looking girl.

Case 4.—Pemphigus vulgaris; inveterate and persistent. Mrs. Mc——, æt. 34; mother of three healthy children; husband healthy. She has been scarcely free from eruption for three years, and most of the time was in a condition most repulsive to herself and others. Had about two hundred patches of bullæ, and a number of fungating but superficial ulcerations. Was emaciated and generally broken down. She came under my care in February, continuing three months. During this time she used linseed and oil internally, externally, and almost eternally, together with appropriate tonic remedies. She gained thirty-two pounds, and became a healthy, plump, and cheerful woman.

I have now in my mind many cases of chronic eczema of hands, etc., which I have treated by external use of this oil, with cure in all cases save one, now under treatment. She is improving under application of raw linseed oil, with one or two wrappings or bags of old linen.—*Summarized from "Archives of Dermatology," October*, 1878.

ON THE TREATMENT OF SEVERE BED SORES.

BY DYCE DUCKWORTH, M.D., EDIN.

In this short communication to the Asssociation of American Dermatologists, I desire to call attention to some methods of dealing with severe bed sores. I have no intention to offer any suggestions respecting the preventative treatment of these troubles, because this subject in now very properly relegated to the attention of skilled nurses, who are happily being trained in this country and elsewhere in large numbers. I allude therefore to those grievous cases of large and deep sores, which no treatment has availed to avert, and which comes at once under the care of the practitioner. The worst instances are met with in heavy patients, in those of large build, with flabby and imperfectly nourished integuments. This class of cases is chiefly furnished by the subjects of acute disease of the spinal cord, myelitis more particularly, and in such instances there is not only the direct risk of irritation from involuntary passage of urine and fæces consequent upon paralysis of the sphincters of the bladder and rectum, but there is also a special vulnerability of the integuments dependent upon a rapid failure of their ordinary nutrition. Every educated physician and sick-nurse should know that all cases of this nature should be immediately placed upon a large water-bed in anticipation of such calamitous results as must inevitably ensue from neglect of such precaution. Two or three days of inattention to this point, together with imperfect nursing, will suffice to induce the worst forms of bed sore to be met with.

When such a grievous trouble is added on to the special difficulties of these cases, how is it to be met?

I wish to recommend that, in addition to the use of a water-bed the patient should lie with the buttocks and sacrum constantly upon poultices. These poultices should be made of linseed, (or, as termed in the United States, flax meal,) and if there be much discharge or fœtor, the cataplasma carbonis of the Pharmacopœia should be used.

Since the introduction of so-called antiseptic principles in surgical practice, some objection has been made to the use of poultices in anyway, either to a broken or unbroken surface. They are supposed by some to be centres of mischief and unwholesomeness in themselves, and to produce unhealthiness of wounds. I wish to record my protest against this temporary wave of fashion in therapeutics, and to put in a plea for a little common sense and attention to plain clinical facts, *versus* theory and speculation evolved in the study, and *not at the bedside.* I take it for granted that these poultices are made of pure flax meal, and that they be frequently changed, the old ones being immediately burned, and not again warmed up, as is the custom in some French hospitals. They must be large, so as to cover all the affected parts, and if there be excavated sores over the trochanters, these must be also covered, and a binding sheet secured over the abdomen with safety-pins.

In the case of there being any sloughing portions of muscular and fibrous tissue in the wounds, and also if the wounds be flabby or languid, the addition of balsam of Peru to the poultice becomes highly desirable. If there be deeply excavated sores, plugs of lint smeared with the balsam, should be placed in the cavities, and the edges of the wound be gently compressed by strips of diachylon plaster.

If the wounds become unduly vascular or granular, dossils of lint dipped in zinc, or copper-sulphate lotion, (two grains to the ounce) are very useful for a time, and should be placed in the cavities as described.

It will be found necessary to persevere with the poultices till the bed sores heal, and this is sometimes a matter of many months.

The practice here recommended is that which is followed with much success in St. Bartholomew's Hospital. I am not aware to whom is due the particular credit of the measures herein urged.

Quinine in doses of two or three grains, thrice daily, is of service in the treatment of the general constitutional condition of such patients, but of course any other medicinal treatment can be carried out if required for the special lesions which have led to the complication.—*Archives of Dermatology.*

Midwifery.

ON CERTAIN FORMS OF NON-PUERPERAL UTERINE HÆMORRHAGE.

BY A. E. AUST LAWRENCE, M.D.

Physician-Accoucheur to the Bristol General Hospital.

(*Concluded from our last.*)

3. *Mucous and Fibrous Polypi growing from the Cervix Uteri.*—In the nine cases in which these existed, there was no difficulty in the diagnosis. They were easily felt by the finger, then a speculum was passed, and they were stripped off, and nitric acid applied to the place from which they grew, which in all cases was just inside the cervix. All the patients complained of leucorrhœa and the discharge of blood-stained mucus, and occasionally pure blood, independent of any menstrual period—conditions, in my mind, absolutely demanding a vaginal examination, which was all that was necessary for a diagnosis, and the treatment required was perfectly simple; and yet these women had been going on like this—some for months, others years—for the reason, as stated by them, that they did not like to see a doctor. The pain was not great, nor was there any great loss of blood at one time to cause them alarm: hence they put off the day until they became weaker and the hæmorrhage increased.

4. The next class includes ten cases of subinvolution of the uterus. The chief points complained of were excessive menstruation, with very profuse intermenstrual leucorrhœa. I have not included in this class cases where the uterus was displaced, or where there existed any other pathological condition, as a complication of the subinvolution. The cases to which I allude had a history of a confinement or miscarriage, dating back from a few weeks even to years. They all had the uterus enlarged, the cavity measuring from three to four, or even five, inches in length. The diagnosis was made partly by the history of the case and the physical examination, and partly by the exclusion of other states, the symptoms of which are somewhat similar. Although a certain proportion of cases of subinvolution are complicated with other states, yet these cases are mentioned simply as showing that the enlarged uterus, left after the termination of the pregnant condition, is enough of itself to produce copious hæmorrhagic and other discharges, and this without any displacement or erosion of the cervix, etc., although these latter conditions often complicate subinvolution. The treatment I adopted in the ten cases I have brought forwark was, to apply to the inside of the uterus the tincture of perchloride of iron, and to give ergot and bromide of potassium, and pay attention to the general health. I believe that, to obtain the proper involution of the uterus, it is most important to attend to the general health, as well as, of course, to rectify any local disturbance. They are tedious cases; but still a great deal can be done for them, if we are only allowed sufficient time.

5 and 6. *Retroflexion and Anteflexion.*—The next class includes five cases of retroflexion and three of anteflexion. They are mentioned, because the ordinary symptoms of these conditions were entirely absent. The patients came complaining of too much hæmorrhage at the menstrual periods, with a certain amount of leucorrhœa. They were all patients under forty years of age, and I could detect no cause for the excessive menstruation, except the displaced condition I have alluded to; and, as the periods lessened considerably when the uterus was maintained in its proper position by means of a suitable pessary, I think I am warranted in ascribing the menorrhagia to the displaced condition of the uterus. I simply mention these cases, so that it may enable any one to recognize a probable cause of hæmorrhage, when otherwise it might be overlooked, as the usual symptoms of the displacements mentioned were absent.

7. *Parametric Inflammation.*—I allude now to a very troublesome class of cases, viz., that of parametric inflammation, one of the forms of what is more commonly known as pelvic cellulitis. This condition, by fixing the uterus, has a great tendency to induce excessive hæmorrhage from that organ at the menstrual periods, more especially if the uterus be caught and held by the inflammatory effusion in a state of subinvolution. I mention this condition as being a cause of uterine hæmorrhage, chiefly on account of its being frequently overlooked, as

it is sure to be, by those who only examine with a speculum, instead of using the finger, by which the hardness in the vaginal roof is at once recognized. The treatment locally in these cases is negative. One must rely upon time, aided by iodide of potassium, ergot, and good food; this treatment, in a certain proportion of cases, does good, but others remain to a very great extent incurable.

8. *Pelvic Hæmatocele.*—I now allude to a condition which has been the cause of excessive and prolonged uterine hæmorrhage in four cases, very likely from its situation so close to the uterus. I allude to pelvic hæmatocele, due possibly to the rupture of some veins in the neighbourhood of the uterus, or, I think, in some cases really formed by escaped menstrual blood through the Fallopian tubes in cases where there is a narrow cervix uteri.

The history in my cases has been that a period was just coming on, that some exertion undertaken at this time was followed by great pain in the abdomen and faintness and discharge of blood *per vaginam*, and instead of the period passing over, it became constant, and had lasted some weeks when they came to the hospital. As the acute symptoms disappeared, so did the tendency to hæmorrhage. In these cases, we must not be in too much hurry to check the hæmorrhage, or lightly undertake to plug the cervix uteri, and so cause possibly more blood to escape into the pelvic cavity; and as long as the hæmatocele is recent, we must be very careful in making a vaginal examination. The best treatment in recent cases is to enjoin absolute rest in bed, with the pelvis raised. As for medicine, I prefer turpentine in recent cases to anything else; sometimes I combine with it small doses of ergot, but must often give it by itself. The cases that I have had all recovered in an average time of six weeks. It is surprising how great are the powers of nature, alone and unaided by art, to manage these cases—enormous effusions being got rid of in a comparatively short time; and with the subsidence of the hæmatocele, so has the tendency to menorrhagia become less and less, until eventually the periods have resumed their normal characters.

9. *Ulceration of Os and Cervix Uteri.*—The next class of causes for uterine hæmorrhage is the one, I believe, best known, and is visible to any one through a speculum. I allude to the so-called ulceration of the os and cervix uteri. It is not so frequent a cause of hæmorrhage *per se* as one might suppose it to be; for I have had only twelve cases where I could say that it was the real cause, and uncomplicated with either of the conditions to which I have already alluded. A large number of cases of other pathological states of the uterus have the cervix abraded as a complication of those states, and one must not be led to treat a minor and induced state instead of the real diseased condition; for instance, let a woman have a retroflexed uterus, and very soon the posterior lip will become digested, and very likely what is termed ulcerated. Here there may be a double source of hæmorrhage, and the sequence of events must be borne in mind in treating the case. The cases I have brought forward were purely examples of what an abraded condition of the os and cervix uteri would do when uncomplicated with any other diseased condition. The menorrhagia and leucorrhœa induced by the above condition were both cured by local applications, the chief of which was nitric acid. The surface of the cervix healed in most cases, with about three or four applications of the strong acid, at intervals varying from a week or ten days, or a fortnight; and as soon as the surfaces were healed, the menstruation became normal.

10. *Stenosis, or Narrowing of the Cervix and Os Uteri.*—I have to allude now to a class of cases where, although pain is an important symptom, yet hæmorrhage is one that must be taken into account also; and it was mainly on account of the latter symptom that the six cases forming this class applied for relief. This condition, by not allowing a free exit for the menstrual fluid, allows a portion of it to coagulate *in utero*, and this acts as an irritant and causes a chronic congestion to be kept up, which of course, greatly increases the amount lost at the period. An examination with the sound reveals the cause. The treatment is simple: divide the os uteri externum to make it larger, and, if necessary, cut slightly the sides of the cervical canal; then pass a sound twice a week for a

month or two ; and, in most cases, the relief, both from hæmorrhage and from pain, will be permanent. It has been so in four of my cases ; the other two I have not been so fortunate as to entirely cure, although they are relieved to a great extent from menorrhagia.

11. *Anæmia.*—The last condition to which I intend alluding, as a cause of uterine hæmorrhage, is a general one, and that is anæmia. Although, of course, it is often the consequence of excessive hæmorrhages, yet it is occasionally the cause of excessive menstruation. I have had four cases, of which the following is a typical example. A thin pale girl, aged 17, began to menstruate at fifteen, and has done so about every two or three weeks profusely. No uterine disease could be detected ; in fact, the hæmorrhage was more like a constant oozing of blood, and not with much colour. The cases were cured by directing attention to the general state of anæmia, and insisting upon the recumbent position, with the hips raised during the continuance of the menstrual period.

In conclusion, I must ask you to excuse the very short account given of most of the conditions mentioned in my paper ; but all I wished to do was to place before you an analysis, as it were, of some of the causes of uterine hæmorrhage, so that it might be of the same assistance to you as it is to me.—*British Medical Journal.*

Action of Tincture of Iodine on the Neck of the Uterus—(M. Laboulbène.)—The tincture of iodine has a different action on the neck of the uterus, depending upon a sound or diseased condition. If the neck be sound the coloration is of a deep uniform brown ; if the slightest ulceration exist, there is produced at the affected point a more or less clear yellowish coloration, contrasting with the brown coloration of the neighbouring parts. Each granulation or vegetation remains yellowish and does not become brown. After the application of the red hot iron, which M. Laboulbène specially recommends for ulceration of the neck, the cauterized part is only coloured yellow in proportion as it is not entirely cured. After cure, on the contrary, the neck becomes browner and browner from the tincture. If the neck is large without being ulcerated, and if the tincture of iodine produces yellowish islets, we should suspect a neoplasia, and fear an approaching ulceration in the points where the tissue is but little coloured.—*La France Médicale.*

Original Communications.

MEDICAL EVIDENCE IN COURTS OF LAW.*

BY DANIEL CLARK, M.D.,

Superintendent of the Asylum for the Insane, Toronto, Ontario.

Anyone who has paid even a superficial attention to medical evidence given in courts of law, must have noticed, from time to time, how easily medical witnesses can be procured to give evidence on both sides of a case. It matters not how clear may be the merits of the question, nor how little grounds exist for difference of opinion, yet medical men are found who will give positive testimony on either side, at the shortest notice, and on very flimsy premises. Lawyers take advantage of such conflict of opinion, and set up one medical man against another, until both judge and jury value the evidence by the reputed credibility and professional standing of each, and virtually neutralize the evidence of all by a system of offsets. This only refers to medical opinions, for in respect to facts all witnesses—lay or professional—stand on common ground, and state what are matters of observation, "without note or comment." It is true, medical science gives room for great differences of opinion, seeing it has not the exactness of mathematics. Herein lies the error of dogmatizing on much which is so obscure. Many of these varieties of opinion arise from a vain endeavour to explain everything connected with causes of litigation. In the presence of a court and the assembled multitude it may not be pleasant to pronounce our ignorance ; yet, in the endeavour to give answers hedged round with vain hypotheses of all kinds, the medical witness is apt to have unpleasantly forced upon him a display of how little he knows under a cross-examination, and thus what would have been received as competent testimony, if it had been confined to sure opinion, is marred and doubted by pretending to know too much. In this plethora of opinion lies one reason for so much contradictory evidence. It is well never to say more than the question covers, and to be guarded in even

* Read before the Canada Medical Association, at Hamilton, Ontario, September 12th, 1878.

doing that, if the interrogation happens not to be relevant to the case at issue.

Another reason is in supposing ourselves as being witnesses for one side only, because we happen to be subpœnaed by one of the parties. The prosecutor or defendant, who calls a medical man, expects him to give *ex parte* evidence. He is paid a miserable pittance to cover railway and hotel expenses. Is his testimony not bought and paid for, to be used on the disburser's behalf? This feeling, often involuntary, gets hold of the witness, and immediately the examination begins, he is on the alert against the wiles of the opposite lawyer, and often unconsciously is put upon the defensive to the injury of the truth. We have all felt this tendency. This position is not intentional, but the badgering of an indiscreet lawyer may drive a medical witness to defend opinions which may give a colouring to a case not intended at the outset. This bias has to be guarded against. The witness is in court to tell *all* and *only* the truth as far as in him lies. It is not for him to think of the result, consequent thereon, to any party. In giving evidence it is not safe to weigh what will be the consequences flowing from its acceptance. "Let justice be done though the heavens fall." Unfortunately medical witnesses, giving opinions based on experience, are looked upon with suspicion by the courts. J. H. Balfour Browne, in the last edition of "The Medical Jurisprudence of Insanity," says: "That medical testimony, when received, should be received as of very *inferior worth*." Medical witnesses are said to be "rash," and "to have expressed crude generalizations with an imperturbable effrontery," and that alienist physicians ask to be believed, "with an implicit faith, which is only compatible with the grossest ignorance; lawyers should assert the utter uselessness of the evidence of scientific witnesses in relation to questions of insanity." Lord Campbell says that "hardly any weight should be given to the evidence of skilled witnesses." Judge Davis declares in cases of insanity, "men of good common sense would give opinions worth more than that of all the experts in the country." A book might be filled with such choice quotations. If those who have made this branch of medical research a life-long study are such ignorant and unreliable witnesses, what shall be said of the intelligent thousands and tens of thousands in general practice?

It is also to be remembered that in cases of damage for malpractice, each surgeon may have a mode of treatment distinct from any other, but sufficiently practical to be approved of in general practice by any intelligent physician or surgeon. This treatment may be denounced by some one who is not able, from experience, to test its value, and an unlettered jury may decide the merits of the case in its professional aspects, by considering one method as only worthy of consideration, and give a verdict accordingly, to the astonishment of those best capable of judging. Next to the inscrutable ways of Providence stand the verdicts of juries, in their uncertainty and unforeseen results. This selection, by non-professional men, of one method of treatment, to the exclusion of all others, has been seen by me on several occasions. At one time the prosecution was because of a shortened femur, and the merits of the double inclined plane or a straight splint, were decided by a jury selected from one of the back townships. Another was decided in favour of a flap operation as against a circular, the jury being composed mostly of farmers, fresh from the harvest field. Not long since I attended a trial in this city and the jury were treated to clinics on the *dura mater*, *arachnoid*, *pia mater*, and their blood vessels. The jury understood the merits of the case, after several hours of medical dissertations, as much as if the Crown Counsel had given an address in Choctaw. I envied one juryman who slept soundly through it all, except when elbowed by a neighbour.

Antagonisms unhappily existing among medical men lead to conflict of opinion. A case comes from a village, a town, or even a city. Observation teaches that the smaller the area from which such evidence is drawn, the stronger are the contentions in the loca ity, and the more likely does it become that sides are taken before the suit goes to court. It is a matter of every day experience that in a majority of cases, such a locality will furnish medical evidence for prosecutor and defendant. The reasons already given may have something to

do with this diversity of conception. I fear unfriendly feelings, of a professional nature, must sometimes be taken into account. To the honour of our profession, it is seldom that false testimony is given from motives of revenge. Animosity against a professional brother seldom reaches perjury; yet, a love of establishing proof on a different basis from that of a rival, often leads to false conclusions, not intended by the witness. If this itching for novelty leads to wrong impressions, they are still farther intensified by ambiguity, which may be caused by unnecessary economy of words, or by the other extreme of profuseness of illustration, not conducive to perspicuity. Such being the case, a court refuses to reconcile contradictions among those who are supposed to know the merits of the case.

The late Lord Campbell said to three intelligent physicians, "You may go home to your patients, and be more usefully employed there than you have been here!" An equally learned judge said of another doctor, who was well qualified to give good evidence, "You might as well have stayed at home and attended your patients." A Vice-Chancellor of the Empire stated "that his experience taught him there were very few cases of insanity in which any good came from the examination of medical witnesses. Their evidence sometimes adorned a case, and gave rise to very agreeable and interesting scientific discussions; but, after all, it had little or no weight with a jury." All judges do not sneer in the same manner, nor indulge in irony and sarcasm at the expense of the medical profession, but the weight given to a physician's or a surgeon's testimony is not commensurate with his capability to give intelligent and experienced medical opinions. I can see, however, indications of a better understanding between medicine and law. The study of the obsolete is giving place to the practical, and metaphysical distinctions to pathological conditions, in considering many of the exciting causes of human conduct coming under the head of jurisprudence. It will be seen how medicine and law are considered from different standpoints, and as a consequence, the conclusions are diametrically opposite to one another. Medicine holds that all insane persons are afflicted with bodily disease. Law says this is not always the case. Medicine draws a necessary line between idiocy and insanity—the one being congenital and the other pathological. Law says they are one. Medicine declares that insanity, being a morbid state, no layman can properly pronounce judgment upon a patient's condition, nor in respect to facts that rise therefrom. Law asserts that a jury can, and should decide on the mental condition of the insane, based upon personal observation, just as an ignorant man would pronounce on the kind of disease a person had from appearances alone. Medicine can show from living examples that the sense of right and wrong, the possession of delusions, and many other tests propounded by the disciples of Coke and Blackstone, can have no value to discover insanity, when taken alone, for many insane have a keen sense of the former, and many not insane are troubled with the latter. Law says possession of the first is evidence of a sound mind, but the presence of the other shows insanity. Medicine extends the hand of charity to the mentally diseased, and asks that such be kept in durance for the purpose of cure or safety to themselves or others. Law applies its iron-clad tests, and punishes all who can not pass the crucial ordeal. Medicine seeks after causes of action. Law deals out justice on the groundwork of appearances. Experts are called into court to testify in cases requiring the special aid of knowledge in chemistry, mechanics, or any other branch of science and art, and such testimony is accepted in its entirety; but medical men who make a special study of mental diseases, must have their opinions measured by the mental capacity of twelve jurymen, or worse still, by the dicta of judges, who accept rules laid down a century ago, when medical research was still in its infancy. Germany, France, and many of the States of the Union have accepted the medical basis of proof. It is expected that the British and Canadian courts will not ignore a system that in everyday practice will be found to be none the less effective in punishing the guilty, while it will save many a poor wretch from the infliction of a punishment which he had not deserved, as an irresponsible being, any more than a child unborn.

Judge Doe, of New Hampshire, in addressing the jury, State *vs.* Pike, says: —

The legal profession, in profound ignorance of mental disease, have assailed the superintendents of asylums, who knew all that was known on the subject, and whom the world owes an incalculable debt, as visionary theorists or sentimental philosophers, attempting to overthrow settled principles of law; whereas, in fact, the legal profession were invading the province of medicine, and attempting to install old, exploded medical theories in the place of facts established in the progress of scientific knowledge. The invading party will escape from a false position when it withdraws into its own territory, and the administration of justice will avoid discredit when the controversy is thus brought to anend.

Judge Wharton, in his work on "Criminal Law," says :—

No juryman, if properly tender of his conscience and of public opinion, will base his verdict upon other evidence than that of those best able, from long training and close attention, to understand the features of the case. In some cases the difference between a scientific, or technical opinion, and that of a layman, is not so much in the results attained as in the guarantee afforded by the superior attainments and more minute expertness of a man of science. The declaration of such a man is insured against the possibility of error to the full extent of the protection of science in its present state of development. *Pro foro*, this degree of certainty is sufficient, because it is the highest attainable; but, the same cannot be said of any other.

I make these few general observations to show that our position in court would be much improved did caution, consistency, discretion, and good judgment and candour prevail to a greater extent among ourselves. This would more readily be the case were all medical men, who might be subpœnaed upon a case, to meet together before being called as witnesses and in a calm, judicial way, discuss the different medical points bearing upon the approaching trial, and then go into the witness box, not as partisans "coached" for the occasion by counsel, but as unbiassed witnesses, who "nothing extenuate nor set down aught in malice." These qualities are needed very much in the witness who gives evidence in cases of insanity. In most of such found on the criminol docket the disease is obscure, and to "make haste slowly" is very necessary that judgment may be just. The defendant may be a malingerer or a monomaniac, who cunningly hides his peculiarities (as many of them do). Such may be afflicted with melancholia, giving intelligent answers to questions, yet possessing homicidal or suicidal tendencies. The medical witness is often asked to give an opinion of the mental condition of such a person after a few minutes' observation and conversation, or at most after one or two interviews of short duration. There would be no difficulty in doing this were a patient maniacal and indulging in all sorts of "fantastic tricks," but anyone who has passed through the wards of an asylum knows that a very large proportion of the patients are not of this class. Visitors and grand juries often mistake patients for attendants, and *vice versa*. A few weeks ago an intelligent banker of Toronto wrote to me a letter beginning with these words, "The *housekeeper* mentioned to me yesterday." He had been a visitor to the ward every few days for weeks to see a sick friend; yet he mistook one of the most cunning patients in the ward for the housekeeper, and had been consulting him about matters connected with the patients. He was somewhat astonished when told that the *housekeeper* was at times one of the most intractable patients in the ward. A short time ago one of our city lawyers, who prides himself on his power to read almost intuitively the hieroglyphics of character, and who, in his own estimation, could tell an insane person at sight, mistook one of my clinical assistants for a lunatic, and commiserated him on his unfortunate condition. He afterwards came to me for information about the "poor fellow," as he had taken a deep interest in his forlorn and apparently hopeless condition. His pride had a fall when the truth came out. A prominent government official, not long since, mistook one of my most intelligent-looking attendants for a patient. I am prepared at any time to select, say twenty-four intelligent attendants or citizens, and twenty-four patients out of Toronto Lunatic Asylum, and present them to any court of law before our most eminent judges, lawyers, and jurymen. They will be allowed to make the same superficial examination which is often accorded to medical men in similar circumstances. The selection of patients shall be made from paretics in the early stage of the disease, from those afflicted with remittent insanity, from the melancholy and taciturn, and

from monomaniacs. The judgment given of the mental condition found in each case, by such an intelligent and acute board of examiners, would show in a comical light what a travesty of jnstice it is to ask even an expert to give an opinion of mental unsoundness, or sanity, after a cursory examination of a prisoner. About a year and a-half ago I was called to attend the assizes in a neighbouring county and asked to decide in a few hours the *mental status* of a prisoner, who had attempted to take the life of his neighbour by shooting him. The houses of the two parties were near together, being situated on opposite sides of a country road. The prisoner cut a hole in the gable end of his house, and being a bachelor living alone, there was no one saw him cut the hole or shoot. He shot twice at his neighbour, the last shot taking effect in his lung, but not fatally. Every one of the prisoner's acquaintance, lay and medical, thought him eccentric, but perfectly sane. The first two interviews I had with him, I was led to suppose the same. He could talk intelligently on every topic of conversation that was introduced, but would give no reason at first for the attempted homicide. At the last interview I had with him we began to discuss religious matters. Suddenly he asserted with great solemnity, and with a request to keep it a secret, that he was more than human. I suggested that possibly he might be God in human form. He asserted that I had found out the truth. He was omnipotent, and consequently could do what he wished. He had often lived sixty days at a time without food, to show that Christ's fasting of forty days was not a miracle. When he got out of gaol he intended to fast a year. He had been shot at with bullets by his enemies as he went along the road, or worked in the fields, but having an immortal body, they could not harm him. We were sitting on a bed, and I suggested that he might be smothered to death, but he said that he could live without breath. If his head were cut off, it would not affect him. He could make himself invisible whenever he pleased. Everyone's life was in his hands, and the wife of the man he shot was his by his divine right to her. Here it will be seen that a morbid idea led to the attempt at homicide. Had I not happened to touch the key that opened the door to his chamber of fantasies, these aberrations would not have been developed. I was subpœnaed by the Crown, but the Queen's counsel knowing that my opinion would be that this man showed evidence of insanity, I was not put in the witness box. The defence had not sufficient acumen to see that this refusal to examine me by the prosecution was presumptive evidence of my opinion being inimical to the case of the Crown counsel. The prisoner was treated as a sane man and a criminal. He is now in the Penitentiary Asylum. This case is cited to show the danger of hasty conclusions in cases of insanity, and the difficulties medical men have to contend with when asked to decide the mental condition of a prisoner at a few hours' notice. What shall be said of the jury who must give a verdict based upon conflicting opinions, and not upon personal knowledge of the condition of the accused? Some time ago the Commissioners in Lunacy in Britain wisely recommended to the Government that, "If, upon the occasion of the trial of an indictment, the plea of insanity be set up, we are disposed to think that the question should be tried and determined by the court after taking medical and other evidence, and not by the common jury to try the facts."

An eminent English expert (Bucknill) says:

Generally the physician giving evidence can almost say that he paid *two* or *three* visits to the accused, and conversed with him in his *cell* in prison. In cases of concealed delusions, or of disease affecting the propensities, no medical man ought to give an opinion on such shallow grounds. I am not ashamed, he continues to say, to acknowledge that I have observed patients *daily* for *several weeks* without being able to detect existing delusions.

The court has too high an estimate of the discerning power of the members of the medical profession. It must be remembered that there is no well-defined line between sanity and insanity. No man can tell where the one begins and the other ends. That belongs to omniscience, for we can only infer from manifestations what are the pathological conditions of the brain and mental disturbances consequent therefrom. A witness should never give a positive opinion in obscure cases, for it must

be remembered that while it is unjust to punish an irresponsible person who breaks the law, it is also not desirable that a cunning scoundrel should escape the just penalty of his crimes under a false plea sustained by medical evidence. We are not allowed to state as to a man's responsibility. The court decides that important point. Here lies a wide gulf between law and medicine, and, because of its existence, truth has suffered. No formula can ever cover all the phases of insanity, nor can a measure be found that is sufficiently accurate to map out the boundaries of responsibility, and to say to it, "Hither shalt thou come and no farther." All the conditions, physical and mental, of each individual must be known before the springs of action can be gauged with certainty in the shadowy borderland of insanity. "Is there insanity?" asks the court of the medical witness. "Is he responsible?" is an enigma for the judge and jury to solve.

Bucknill, in his monograph on Lunacy, quotes a vigorous writer in the London *Times* on this point:—

Nothing can be more slightly defined than the line of demarcation between sanity and insanity. Physicians and lawyers have vexed themselves with attempts at definition in a c se where definition is impossible There has never yet been given to the world anything in the shape of a formula upon this subject which may not be torn to shreds in five minutes by any ordinary logician.

Make the definition too narrow, it becomes meaningless; make it too wide, the whole human race are involved in the drag-net. In strictness, we are all mad when we give way to passion. to prejudice, to vice, to vanity; but if all the passionate, prejudicial, vicious, and vain people in this world are to be locked up as lunatics, who is to keep the key of the asylum? As was fairly observed, however, by a learned baron of the Exchequer, when he was pressed by this argument, if we are all mad, being all madmen, we must do the best we can under such untoward circumstances. There must be a kind of rough understanding as to the forms of lunacy which can't be tolerated. We will not interfere with the spendthrift, who is flinging his patrimony away upon swindlers, harlots, and blacklegs, until he has denuded himself of his possessions and incurred debt. We have nothing to say to his brother madman, the miser, who pinches his belly to swell the balance at his bankers—being seventy-three years of age and without family—but if he refuses to pay taxes, society will not accept his monomania as pleadable at the bar.

(To be continued.)

[To the Editor of the CANADIAN JOURNAL OF MEDICAL SCIENCE.]

TWINS: HEAD-LOCKING.

DEAR SIR,—In reply to Dr. James Langstaff, who reports a case of "Cephalic Lock of Twins" in your journal of this month, I send the following extract, taken from "Barnes' Obstetric Operations," American edition, 1876, pages 180–3.

Yours truly,

ADAM H. WRIGHT.

Toronto, Nov. 1st, 1878.

The most common form of locking occurs through the hitching of one head under the chin of the other: and this may happen whether both children present head first, or one by the breech, the other by the head. The latter case appears to be the more frequent. A child presents by the feet or breech; and when born as far as the trunk or arms, it is found that the labour does not proceed, and on making traction to accelerate the delivery, unexpected resistance is encountered. You pull, but the child sticks fast in the pelvis. The first surmise is, probably, that the head is too large, from hydrocephalus, or that the arms have run up by the sides of the head, wedging it in the brim. You liberate the arms, and pull again, and still the head refuses to move. And now you must explore fully. You may get information in two ways. First, produce anæsthesia, and pass your left hand into the cavity of the pelvis, so as to reach above the child's breast, feeling for its chin or mouth. Instead of feeling this first, you may be surprised at meeting a hard, rounded mass, jammed in the neck and chest of the presenting child, which can hardly be anything else than the head of another child, which has got in the way of the first. Secondly, by external palpation, you may succeed in making out through the abdominal walls the head of a child above the symphysis pubis, inclined to one or other side, in a po-ition which its relation to the trunk partly born, and to the head you have felt whilst exploring the interior of the pelvis, will satisfy you is the head of the first child.

If the children are small, they may, with more or less difficulty. come through the pelvis together in this fashion.

Sometimes it has been possible to seize the second head by the forceps, and to extract it and the embryo to which it belongs without disturbing the first child. But if the children be at all large, this proceeding is not likely to save them. The pressure to which both must be subjected is too hazardous. Even with children of the average size, the head of the second child, resting on the neck and chest of the first, form a wedge too large to clear the brim.

The apex of the wedge formed by the trunk of one child has traversed the pelvis ; the base, formed by the head of one child pressing against the neck of the other, is too large to enter the pelvis ; and if traction is exerted on the apex, the only effect is to jam the head tighter against the neck, hooking the two heads more firmly together. The problem is, how to extricate one head from the other, so as to allow one child to pass at a time. There are several methods of accomplishing this. But, before deciding on one, it is well to study how the children are affected by the complication. Is one child in greater jeopardy than the other? If so, which? If we find that the situation involves extreme peril or death to one child, we shall, of course, not hesitate to mutilate this one, if, by so doing, we can promote the safety of the other. The first thing you will try to accomplish is, to disentangle the heads without mutilating either child. It is still possible that both may be born alive. The patient being rendered insensible, you press back the trunk into the pelvis as much as possible, so as to lift the heads off the brim, and so to weaken the lock. Then, by external manipulation, aided by a hand in the pelvis, you try to push the heads apart in opposite directions. If you succeed in unlocking them, support the head of the second child out of the way, whilst you or an assistant draw down the body of the first child and engage its head in the pelvis. If you can manage this, the difficulty is over.

Now, experience and reflection concur in shewing that the first child whose trunk is partly born encounters by far the greatest danger. Its umbilical cord is likely to be compressed ; its neck and chest are forcibly squeezed. On the other hand, the umbilical cord of the second child is comparatively safe, and the pressure upon its neck is less severe. You may, moreover, find, by feeling the cord of the first child, that it is pulseless and flaccid, and that tickling its feet excites no reflex action. Having thus determined that there is no hope for the first child, you turn to the best means of rescuing the second. You may decompose the wedge formed by the two heads by detaching the head of the first child. This is done by drawing the body of the child well backward, so as to bring its neck within reach. Being held in this position by an assistant, you pass the fingers of the left hand into the pelvis, so as to hook them over the neck, and serve as a guide to Ramsbotham's or Braun's decapitator, or the wire *écraseur*. If these are not at hand, the task can be accomplished by strong scissors, or even by a penknife.

As soon as the neck is severed, the trunk will be extracted easily enough. The head of the first child will slip up or on one side, or you make it do so by passing your hand inside the uterus. If the head of the second child do not descend by the spontaneous action of the uterus, you may either seize it by the long double-curved forceps, or seize a leg and turn. The first head will follow last of all. If it offer any difficulty, it may be dealt with as described in Lecture XVI. (by the crotchet, the forceps, the craniotomy-forceps, or the cephalotribe).

If there be reason to conclude that the second child is dead, it would be justifiable to perforate its head, and lessen its bulk by help of the crotchet. This is another mode of breaking up the base of the wedge. The head will then flatten in, and permit the trunk and head of the second child to be delivered.

In the other case, when the head of the first child presents, and gets locked by the head of the second, a similar rule of action will apply. You may disentangle the heads by external and internal manipulation. Failing this, you may seize the foremost head by the forceps ; and whilst an assistant pushes away the second head, you can extract the first child. A good case, in which this plan succeeded, is related by Dr. Graham Weir (*Edin. Jour. of Med.*, 1860). Hohl recommends to apply forceps to second head.

[Playfair (page 356, second American edition), in the chapter on *Dystocia from Fœtus—Two heads interlocking*, says :—"The first endeavour should be to disentangle the heads; this is sometimes feasible if the second be not deeply engaged in the pelvis, and the hand be passed up so as to push it out of the way. This will but rarely succeed; then it may be possible to apply the forceps to the second head and drag it past the body of the first child, and this is the method recommended by Remiau (*American Journal of Obstetrics*, Jan., 1877)." These methods failing, the treatment as quoted from Barnes is recommended.—EDIT.]

LITHOTRITY BY A SINGLE OPERATION.

N. A. POWELL, M.D., EDGAR, ONT.

Sarah Towns F———, æt. now five years, first presented symptoms of trouble referable to the urinary organs in October, 1876. Pain, partial incontinence and the passage of blood and mucus continued from this time, and in January, 1878 a bit of "gravel" the size of a split pea came away. During the following spring the desire for urination became almost constant, and vesical tenesmus was marked. On June 12th, my friend, Dr. Blackstock, of Hillsdale, was called to see her, and on the 13th, under an anæsthetic, he examined, and found a calculus at the neck of the bladder.

An operation for its removal was advised, and pending this, anodynes were freely given. On July 9th, the writer, in consultation, saw the case for the first and only time. The child was said to be failing very fast: she was much emaciated; was suffering severely; and seemed to gain a respite from her pain only when violently rocked while in the knee-chest position in a cradle. P. was 140, T. 102½°F. Chloroform, replaced later by ether, was given, and a stone found jammed into the upper part of the urethra. This was displaced upwards, caught in the blades of a smaller Weiss & Thompson Lithotrite, and crushed. The scale showed ⅝ of an inch separation of the blades. Further comminution of the fragments was effected by means of long polypus forceps. Evacuation was accomplished by the same, aided by the frequent injection and aspiration of warm water through a large size Eustachian catheter, to which a strong rubber bulb had been attached. This last was the best substitute at hand for Bigelow's or Clover's apparatus. The vagina was too small to admit a finger without undue stretching, but water could be retained in the bladder by pressure upon the urethra.

The first calculus being removed, suprapubic pressure brought two other and smaller ones within reach, and these were treated as the first had been. The distance between the outer surfaces of the blades of the forceps used when grasping the largest fragment removed, was $\frac{3}{10}$ of an inch; this, then, was the limit of urethral dilatation. The lithotrite was used for crushing five times, the forceps twenty or thirty times. The time occupied was 1¼ hours. The bladder being washed and aspirated till, as nearly as possible, freed of its solid contents, the child was put to bed with hot applications over the pubes and to the extremities, and a full anodyne was given. The detritus collected at the time of operation weighed 241 grains; subsequently, 7 grains more were obtained from the strained urine.

For the history of the case after this, I am indebted to notes kindly sent me by Dr. Blackstock or his assistant Mr. Gould, who, with my students, Messrs. Shepherd and Bremner, gave assistance during the operation. "Partial control of the urine returned on the day following the lithotrity, and complete control, except during the night, after three days. The desire to void urine occurred about every hour for several days, and at the end of a week, about every third hour. Slight hæmaturia was noticed for two days." Under date August 27th, I hear that "the child's general health is good. She is gaining in flesh, and has no symptoms of her former trouble."

The above case would a year ago, hardly have merited transcription from the case-book of a country physician to the pages of a medical journal. But since the appearance of Dr. Bigelow's paper on Litholapaxy* the whole subject of the tolerance of the urinary bladder for prolonged instrumentation has come up for

* American Journal of Medical Sciences, January, 1878.

reconsideration, and this is offered in evidence.

From Civiale down, all lithotritists, so far as the writer's knowledge extends, have held that the visits of a lithotrite to the interior of a bladder must be strictly limited in point of time. Though experts may, at times, have given themselves more latitude, they have always taught others not to exceed five minutes for any one crushing. Of late years, also, the tendency has been to confine the operation within narrow and yet more narrow limits, treating by it only such moderate sized stones as could be got rid of in from two to four sittings. It remained for the Harvard professor to demonstrate that the calculus, containing bladder of an etherized man might be manipulated for one, two, or more hours, and yet not resent it by cystitis or subsequent atony; *provided* that no sharp fragments were left in it to do outrage to its lining membrane. Although the case just given occurred in a female child instead of in an adult male, it seems to support Dr. Bigelow's conclusions as to vesical tolerance. Surely the delicate tissue of a child's bladder is ill adapted for prolonged contact with instruments, while the proportion of the organ covered by peritoneum in the child being greater than in the adult, there would seem to be a greater danger of serous inflammation. Yet, here all irritation promptly subsided when the irritant was removed, although its removal took $1\frac{1}{4}$ hours. May we not expect like results when even large stones are crushed in the male bladder and evacuated by the new method? Statistics so far,—seventeen cases, sixteen successful,—seem to point that way..

It may be asked why the urethra was not more widely dilated in this case! My answer is that too large a proportion of those thus treated have been made dribblers for life by it. The ease with which stretching may be accomplished, and the free access which it gives to the bladder, will strongly tempt a surgeon who does not look, beyond the operation he has to do, at the future life of his patient. Prof. Simon, of Heidelberg,* made many accurate measurements to determine the extent to which the adult female urethra may be dilated without the risk of incontinence. His limit is in width 2 centimetres, (= ·8 inch); in circumference, 6 3 cen., (= 2·4 inches.) This would allow a finger to pass, but not a finger plus a pair of forceps. Mr. J. R. Lane thinks no stone larger than an acorn should be removed entire through the urethra of an adult female, and none larger than a bean through that of a child. Dr. Hunter McGuire, of Richmond, Va., states that many cases of so-called successful operations by dilatation and extraction have, to his personal knowledge, been followed by incontinence. Rapid dilatation, however, seems to be less dangerous than slow. In proof of this, I may, in conclusion, mention that I have knowledge of the case of a girl, æt. twelve years, into whose bladder a pair of sequestrum forceps were pushed, a calculus seized and extracted *vi et armis*, dilating and lacerating the urethra as it came. The stone was as large as a pigeon's egg. Absolute incontinence existed for twelve days, but was followed by recovery.

* Translation in N. Y. Medical Journal October, 1875.

Subcutaneous Rupture of Tendon of Triceps Brachii.—By Güterbock (*Langenbeck's Archiv*). A strong woman, forty-seven years old, while carrying a basket on the right arm, had fallen down stairs a few steps, and attempted to support herself with the right hand. Examination showed that the right forearm was in active flexion, but could not be extended except passively; in spite of the swelling of the elbow region, an horizontal rupture of the triceps tendon could be felt above the olecranon. The upper margin of the tendon was distinctly marked about one inch from the olecranon. The olecranon was well defined, and the finger could reach the posterior supra-trochlear fossa. The elbow-joint was fixed in extension in plaster of Paris for one week, the second week maintained in moderate flexion. After this time the triceps began to exert action on the forearm, and its functions gradually became almost normal—that is to say, all movements could be made with force, only active extension was impossible beyond 180°. The horizontal cicatrix was marked as a linear furrow.—W. T. B.

Dr. Bullen, of Hamilton, died suddenly on November 2nd.

TRAUMATIC ANEURISM OF TEMPORAL ARTERY—LIGATION OF COMMON CAROTID—DEATH FROM SECONDARY HÆMORRHAGE.

BY A. McPHEDRAN, M.B., TORONTO.

(Read before the Toronto Medical Society.)

W. C. A——, aged fifty-eight, fell from a second floor window to the ground below, a distance of about twelve feet, on the night of June 28th last. I saw him at four a.m.: he was in a semi-unconscious state, much bruised about left side of head and neck; blood was oozing freely from the ear and mouth, and the soft palate and neighbouring parts were much swollen from extravasated blood, causing great difficulty in respiration. Notwithstanding the severity of the injury, he soon began to improve, and the swelling to disappear, except in the region of the tempero-maxillary articulation—here it became more firm and slight; pulsation was noticeable about the tenth day after the accident, and a day or two later the existence of a traumatic aneurism became evident. The tumour extended from the meatus auditorius extremus, which was almost closed by pressure on its anterior wall, forwards about 1½ in., covering about half the masseter muscle; and from the zygomatic arch above to a line on a level with the lobe of the ear below. Dr. Graham saw the case with me on Thursday, July 11th; and it was decided to give potas. iodide and tincture of ergot, and direct that perfect quietude be observed. During Friday night, July 12th, the patient suffered much pain on left side of the head, and next morning the tumour was found to have increased in size; it now extended forwards to the anterior border of the masseter, and the pulsation was much more marked. Dr. Richardson saw the case in consultation that forenoon, and ligation of the common carotid was determined upon as the only course giving much hope of success: in this opinion, Dr. Graham, who was absent from home in the morning, on his return, acquiesced. We met next day, July 14th, and, with the assistance of Dr. Richardson, I cut down upon and ligated the artery above the omo-hyoid muscle, opposite the upper part of the thyroid cartilage. The patient showed no bad symptoms after effect of the ether passed off, and subsequent treatment consisted simply in keeping him quiet, morph. sulph. being given for a day or two as needed, and giving plenty of nutritious fluid food. Slight pulsation returned in the tumour on the evening of day of operation, but it disappeared in a few days, and the tumour steadily diminished till scarcely a trace was left after a few weeks. The proximal portion of the common carotid continued to pulsate after the operation. The ligature separated on Monday, August 12th, four weeks after ligation. The wound in the neck was nearly closed, and only a slight discharge taking place; it continued to improve during the next few days. I did not see the case again till September 11th, at which time the opening was larger than when last seen, and discharge more abundant. Gave a tonic, and brought sides of opening together with adhesive blaster. But no improvement followed. Severe neuralgic pains in the side of the head and neck set in about September 20th. During the night of September 26th slight hæmorrhage took place, about three ounces of blood being lost. Pressure was directed to be made in case hæmorrhage returned. Dr. Richardson saw the patient with me next day: it was thought that the blood might come from granulations, as he exhibited a tendency to scorbutus. Citric acid, grs. v., every three hours, was ordered; to continue the tonic he was taking. Sept. 28th, one p.m., bled very profusely; had ceased, and blood had coagulated, before I could see the patient. Bleeding did not again recur till the night of the 29th, during which it returned repeatedly. It returned again at five p.m. on 30th, and he died shortly afterwards.

At the *post-mortem* all the structures of the neck were found in a healthy state except the common carotid from its origin to point of ligation. The walls were much thickened and adherent to the surrounding structures; the lining membrane much disorganized by inflammation and the cavity of the vessel filled with pus. The end, at seat of ligation, was open, although much contracted. From this it is evident that a second ligature could not have been passed, and that if hæmorrhage had been controlled death must have resulted from pyæmia, of which it is surprising there were no symptoms even under existing circumstances.

(To the Editor of the Canadian Journal of Medical Science.)

HOSPITAL CONSULTATIONS.

Dear Sir,—Amongst the by-laws of the Toronto General Hospital is to be found a regulation requiring a consultation of the whole staff—physicians and surgeons—before any major operation can be undertaken, and enacting that the opinion of a majority present at such consultation shall govern the procedure in the case in question.

It is my intention, in the first place, to direct your attention to the rather anomalous fact, *in view of the premises*, that no consultation is required to determine the treatment to be pursued in a medical case, no matter how grave its nature, or how uncertain its result, and that, too, in face of the knowledge that medical practice presents incomparably more numerous obscure and difficult cases than surgical experience. Is the loss of a lung then of less consequence than the loss of a leg; or a lesion within the cranium of less moment than a stone in the bladder? I am at a loss, sir, to understand the principle upon which the rule is founded, unless it have been, *ab initio*, conceded that surgeons are less trustworthy than their medical *confrères*; and that the habitual handling of a knife unqualifies a man in respect to sound judgment, and necessitates a surveillance upon his actions and decisions, in the public interest. Then again, that a man, who has made surgical work the study of his lifetime, should be liable, at a hospital consultation, to have his maturer judgment questioned, and his proposed line of action interdicted by a majority, composed of men either his juniors in experience or those whose tastes and circumstances of practice have determined their sphere of labour in other fields, is a monstrous absurdity which should be no longer tolerated.

The undesirability of this condition of affairs has been many a time discussed, but the late issue of a circular from the Board of Trustees to the medical officers of the institution, again directing attention to the by-law, and requesting compliance with its provisions, seems to demand a new ventilation of the question. Let us hope that it may be followed by the abatement of a nuisance which must *stink in the nostrils* of all men of right perceptions.

In Old Country hospitals the practice is unquestioned that a surgeon or physician should be governed in the conduct of a case by his own judgment, and he assumes the responsibility of his own actions. If he feel that his own judgment would be bettered, and the interests of his patient promoted by a consultation, or if he feel inclined to share the responsibility of a case with a brother colleague, he asks whomsoever he pleases, on the staff, to see his patient with him, and then, having had the advantage of other opinion or opinions, he proceeds to follow that line of conduct which under the circumstances seems to him fit.

At St. Bartholomew's Hospital in London a certain day in each week is reserved for consultations, on which such members of the staff as find it possible, or convenient to attend, meet together in the theatre before the students. Cases on which consultations are desired are then brought in; the medical attendant narrates the history and circumstances of the case, and states his opinion as to the treatment it is desirable to pursue. The others, turn by turn, in order of seniority, beginning with the youngest, examine the case, express their opinion—if they form one—and make any suggestion they may deem desirable. The gentleman in charge of the case then decides upon what he will do, and the matter is settled.

This course is so inestimably superior to any other, both in the interest of the patient and that of the students, whose instruction all hospitals claiming clinical advantages are bound to consider, that it is a matter of wonder it is not universally adopted. It is unquestionably of greater benefit to a student to know why a certain conclusion has been arrived at in a given case, than it is to see an operation or other procedure, resulting from that conclusion, a hundred times repeated.

Were some such regulation as this to replace the old by-law of our hospital, its efficiency as an educator would be greatly enhanced, and its utility as a reliever of suffering not diminished, whilst, at the same time, one stigma of absurdity would be wiped from its statutes.

It is in the hope of not proving a vain suggestion that this communication seeks admission to your columns.

Your obedient servant,

Common Sense.

P.S.—The Royal Infirmary, Manchester, has just adopted the Bart's practice.

Translations.

Hôpital des Enfants Malades.—(M. Bouchut.)

On Chloralic Anæsthesia for Extraction of Teeth and Surgical Operations in Children.

When, in 1869, I published in the *Gazette des Hôpitaux* the anæsthetic properties of chloral in children, this fact, announced by Liebreich, was unknown in France. At that time I pointed out this substance as the best remedy for violent and grave choreas. Since then, by daily experiments and daily observations of this anæsthesia, I have confirmed my first affirmations. More than 10,000 instances bear witness to them, for in my wards, every day for the last nine years, from four to eight patients have taken this remedy in anæsthetic dose. This, then, is an established fact in the medicine of childhood, and I say the medicine of childhood because a similar result is not observed in the adult. Perhaps we might obtain anæsthesia in the adult if we could make him swallow a sufficient dose, but the adult has such a repugnance for the acrid taste of chloral that he rejects or vomits it, so that above four or five grammes (sixty to seventy-five grains) its employment is difficult. * * * * In children, on the contrary, the administration of chloral is easy. Here, at the hospital, my nurse has never encountered a single failure. All the children take this remedy well, and do not vomit it. I give 1, 2, 3, and 4 grammes (15, 30, 45, and 60 grains) according to age; below seven years it is not necessary to exceed 3 grammes (45 grains), and between three and five years 2 grammes (30 grains) may be given without danger. The dose is administered all at once, dissolved in 100 grammes (℥iij) of some very sweet vehicle. Half an hour afterwards the child is asleep, and an hour afterwards insensible. This sleep lasts from three to six hours, then awakening occurs, and the child experiences nothing disagreeable. He eats and plays as usual. This may be reiterated the next and following days if necessary. In chorea there are children who thus take these doses for a month continuously without inconvenience, and I have seen children who have swallowed in a month 100 and 120 grammes (1,500—1,800 grains) of chloral.

Exceptionally, as in chloroformisation, there is a period of ebriety, drunkenness, or excitation preceding the anæsthetic sleep, but this is very rare. I have only observed it ten times in 10,000 cases.

Once the anæsthetic sleep of chloral arrives, it may be utilised for a great number of surgical operations. It presents no other inconvenience than that of keeping the child asleep for three or four hours after the operation. There is never any danger, and I have never had an accident to contend against or anything untoward to regret. Once only, in Belgium, has a case of death been reported, but then 5 grammes (75 grains) were given and the child was only three years old. At this age I only administer 2 grammes (30 grs.). This was therefore a fault of dosage, and should not incriminate the remedy.

* * * * * * *

When the object is only to obtain anæsthesia, instead of giving the chloral by the mouth and stomach, the rectum may be used and the medicine given by injection, or in suppository, in the same dose. Thus we may prescribe an injection of decoction of marsh mallows: 100 grammes (℥iij) with 1, 2, or 3 grammes (15, 30, 45 grains) of chloral hydrate, but as this injection may be rejected, it is better to have recourse to suppositories. The suppository should be made of cacao butter, melted with one-fourth of *blanc de baleine* or spermaceti; without this, incorporation of the chloral is impossible. The desired dose of chloral is then mixed in the suppository, which is introduced within the anus, to be lost in the rectum. Once melted the suppository sets free the chloral which is absorbed, and which, as when given in injection, determines anæsthesia. Chloral then produces the same effects by the rectum as by the mouth; but, if it be necessary to continue the use of the remedy for a long time, this mode of introduction is bad. And this is why: the rectal mucous membrane bears chloral well two or three times, but at the fourth it becomes inflamed, and more or less painful tenesmus results. This is not the case with the stomach in children. I have been able to give every day for a month 3 grammes of chloral without in-

convenience, and without producing gastralgia, vomiting, or diarrhœa. * * * *

To sum up:

Chloral hydrate is better borne by children than by adults. In children chloral may be administered for a long time, continuously, without danger.

According to the age, one, two, or three grammes and more administered by the stomach will produce complete anæsthesia, lasting from three to six hours.

Given by injection or suppository, chloral produces the same effects as by the stomach.

In children the anæsthesia, so readily obtained by chloral, may be utilized for the extraction of teeth, the opening of abscesses, aspiration, breaking up anchyloses, the use of caustics, thoracentesis, and a number of surgical operations.—*Gazette des Hôpitaux.*

Treatment of Epileptiform Facial Neuralgia by the Ammoniacal Sulphate of Copper.—(Fereol).

The patient, thirty-two years of age, had been for two months the victim of neuralgic spasms of the fifth pair, of excessive intensity, succeeding each other at intervals of a few minutes. The pain, located on the level with the left temporal region, occurred suddenly, and radiated into the upper jaw of the same side. At the same time, the face was deeply congested. At the end of a variable period, but generally not exceeding five or six minutes, the attack ended with the flow of a few tears. M. Féréol had had recourse at first to granules of aconitine, then to sulphate of quinine, to the recently recommended gelsemium semper virens, to hypodermic injections of atropine, of morphia, to blisters, to bromide of potassium, to chloral and to *granules de dioscoride*, but all without success. In view of this obstinacy, and understanding that his colleague, M. Bourdon, physician to *La Charité*, had successfully employed the ammoniacal sulphate of copper in a similar case, M. Féréol determined to administer this remedy. He began by prescribing it in doses of five centigrammes (three-fourths grain), to be taken before meals as a powder, with sugar. The next day a notable amelioration was observed; the attacks were less numerous. There was a little pain in the stomach, with slight nausea. The next day he prescribed a draught containing ammoniacal sulphate of copper ten centigrammes (1½ grain) cherry-laurel water, ten grammes (ʒijss) syrup of morphia, thirty grammes (ʒvijss). The following day great amelioration: no attacks during the night or morning. After eight days' use of this potion, the attacks had ceased.

The very day on which this patient left the hospital, M. Féréol admitted another with intermittent neuralgia of the supra-orbital nerve, of an extreme severity, accompanied by redness of the conjunctiva and lachrymation, recurring each morning between seven and eight o'clock, to cease at midday. M. Féréol began with an application of leeches, a blister the next day, and the sulphate of quinine in the dose of a gramme (fifteen grains) at first, afterwards a gramme and a half. There was a perceptible amelioration, which was not, however, maintained. At the end of a few days the neuralgia had assumed its former intensity. He then prescribed the ammoniacal sulphate of copper in the dose of ten grammes (1½ grains) per day, then at the end of three days he increased the dose to fifteen grammes (2¼ grains). The pain disappeared completely and the patient left the hospital cured.

Two Varieties of Sciatica—Two Kinds of Pain—Treatment.

There are two varieties of sciatica, one in which the nutrition of the limb is unchanged, the other accompanied by atrophy of the limb. In the first class the neurilemma alone is affected, in the second, the nerve fibres are attacked by the inflammation and cause atrophy of the limb. There are two kinds of pain, one only present on motion of the limb, the other when the limb is at rest. In all cases the first element of cure is rest. To this in cases of the first class must be added blisters and hypodermic injections. The pain being allayed, dry fumigations should be used. Dry heat is better than douches of sulphurous or terebinthinate vapours. In default of the former, vapour douches give the best results.—*L'Union Médicale du Canada.*

On a New Manner of Opening Certain Abscesses near the Margin of the Anus.

BY PROF. VERNEUIL.

There exist, you know, two very distinct varieties of abscess of the anal region. In the one the abscess occupies the ischiorectal region, but the purulent collection occupies the buttock and bulges here. the rectal wall is unaffected and is not laid bare at any point. In the other variety, on the contrary, the pus does not point toward the buttock, there exists only a slight tumefaction, a little redness and heat in this region; the purulent collection has destroyed the perirectal cellular tissue and burrows and points in this direction.

In the first variety of abscess the pus has a tendency to find exit in the region of the nates; in the second, it tends to ulcerate through the wall of the rectum and to open into its cavity. From this difference of seat important therapeutic consequences result, and these it is my object to lay before you.

In the first case a simple incision of four or five centimetres (1½ to 2 inches), practised in the direction of the anus, generally suffices for the evacuation of the pus, cicatrization then rapidly follows without leaving any traces or a fistula behind.

In the second case, if the rectal wall be bulged or bared, even a very large incision is insufficient, and fistula inevitably occurs. (Cases in point are here cited, after which he continues:) As soon as I find the pus pointing towards the rectum I incise not only the abscess in the region of the buttock, but I also, and at the same time, do the operation for anal fistula. In these cases I puncture the purulent collection, and introduce a grooved director, which I make to strike the rectal wall so as to bulge and perforate it at a point as far as possible above the part laid bare; I then bring the director out through the anus and divide by means of the thermocautery all the bridge of tissue between the two openings. * * * * The only objection which can be taken to our procedure is that the operation is a little longer and a little more serious than simple incision, but to that we may reply that the duration of the treatment is ultimately infinitely shorter than with a simple incision.—*La France Médicale.*

Amyloid Degeneration.

In pronounced amyloid degeneration, says M. Cazalis, if there be at the same time albuminuria and diarrhœa, the surgeon ought to undertake no operation; but his intervention may properly be invoked if the most serious symptoms be only a progressive emaciation and an easily recognised hypertrophy of the liver or spleen. At such a time a bold operation may alone, in many cases, save the life of the patient. It has been objected, says Giraldès in his *Clinique des Maladies des Enfants*, against the utility of resection of the hip, that the general state of coxalgics is one of prostration from suppuration. We have always to do with scrofulous patients in whom alterations of different kinds, tubercular or amyloid, of the lungs, the kidneys, the liver, and the bowels, dominantly impress their characters upon the case. Coxalgic children operated upon in these bad conditions are nevertheless ameliorated, and their general condition undergoes changes of such a nature as to presage a cure. Hence the conclusion: By putting an end to the suppuration you place the patient under better general circumstances, as a consequence of which recovery may result. In steatosis, two sorts of degeneration may be observed; the one developing slowly like the amyloid; the other, consecutive to septicæmia, developing rapidly like the steatoses which follow certain intoxications, the phosphoric intoxication for example. This acute degeneration has still to be studied; but there already exists a sufficient number of cases (the majority will be found set forth in this thesis of M. Cazalis) to place beyond all doubt the relation between visceral steatoses and septicæmias. It is therefore of the highest importance that in surgical diseases of long duration and in septicæmias, the clinician should have his attention fixed upon the viscera, and especially upon those so accessible to his observation as the liver. the spleen, and kidneys.—*L'Union Médicale.*

Analysis of Icteric Urine.

When jaundice is not well marked, it is of great assistance in establishing the basis of sound treatment, to analyse the urine by

means of certain reagents. The three following give characteristic results :

1. *Chloroform*, when poured into normal urine, falls to the botom of the test tube, and indicates its presence by a transparency quite crystalline. When poured into icteric urine, and after shaking well, left for a short time to settle, it falls, by reason of its density, to the bottom, and by its dull colour stands in contrast to the yellow colour forming the superficial layers.

2. *Tincture of Iodine*, poured into icteric urine, need not be shaken up. At the upper part we find three well-marked tints. The upper layer formed by the tincture is of a violet colour : below this first layer is a sort of diaphragm of a sea-green colour. A third layer formed by the urine has a yellow tint.

3. *Nitric Acid*, poured into icteric urine and shaken, produces a bottle-green colour, passing into olive. This appearance is very characteristic—*Rev. de Ther. Medico-Chir.*

URTICARIA—A LITTLE-KNOWN DIAGNOSTIC SIGN —SEDATIVE REMEDIES FOR THE CUTANEOUS HYPERÆSTHESIA.

M. Hardy points out a simple means of diagnosis in obscure cases of urticaria. In some cases under observation one sees no eruption ; the patient complains of severe itching of the palms of the hands and soles of the feet. If one scratches the skin with the nails, well-marked red lines appear. To allay the annoying itching, Hardy frequently employs frictions with flour; if this fails to relieve, he uses a lotion of one part alcohol and nine parts of water: this gives immediate relief.

SOLUTION FOR GINGIVITIS—(PINARD).

Hydrate of chloral ʒiv ; spirits of horseradish ʒiv—mix. This solution is recommended for the gingivitis of pregnant women. This inflammation of the gums gives rise to painful mastication, slight hæmorrhages, loosening of the teeth, and sometimes even their expulsion. Every day or every other day the free border of the gums should be touched with a dossil of cotton wool dipped in this solution, after the tartar has been carefully removed from the teeth.—*L'Union Médicale.*

THE CANADIAN
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A Monthly Journal of British and Foreign Medical Science, Criticism, and News.

TO CORRESPONDENTS.—*We shall be glad to receive from our friends everywhere, current medical news of general interest. Secretaries of County or Territorial medical associations will oblige by sending reports of the proceedings of their Associations to the corresponding editor.*

TORONTO, DECEMBER, 1878.

ROYAL COLLEGE OF PHYSICIANS AND SURGEONS, KINGSTON—STUDENTS' ANNUAL DINNER.

The annual dinner in connection with the above institution was held on Friday evening, November 8th, in the British American Hotel, Kingston. The occasion was a most enjoyable one, and demonstrated to the guests the existence of the most cordial relations and fullest confidence between professors and students. The attendance was large, there being present, besides the members of the Faculty and students, a number of limited guests. Letters regretting their inability to attend were received from Sir John A. Macdonald, Lieut.-Col. Hewitt, His Worship the Mayor, Very Rev. Principal Grant, Dr. Campbell, President of Ontario Medical Council, Dr. Pyne, Secretary Ontario Medical Council, Prof. Dickson, Prof. Fowler and Prof. Yates. The dinner was of a *recherché* character, and, in short, the whole banquet proved an unqualified success. The chair and vice-chair were ably occupied by Messrs. W. H. Henderson and R. A. Leonard, House Surgeons of Kingston General Hospital. Following the usual loyaltoasts from the chair and their enthusiastic reception, Mr. Donovan, of the Final Class, proposed "The Medical Council of Ontario," which so nobly protected the province from quacks preying upon the public credulity.

Dr. M. Lavell, Professor of Obstetrics, responded in an eloquent speech. He entered *in extenso* into a history of the difficulties connected with the establishment of the Council, and clearly showed how all its efforts had been to elevate the profession. He assured them that

they had the sympathy and support of the members of the Council. After complimenting the students on their success at their examination in the past, he said that for next year there was an excellent Examining Board, who would exact no information from them they should not possess. He concluded a fluent and facetious address by assuring the students that the members of the Council would always be ready to reciprocate any kindly sentiment they might evince towards them.

Mr. Smith proposed "The Faculty of the Royal College of Physicians and Surgeons," paying several compliments to its members for the earnest and painstaking manner in which they performed the duties of their respective positions.

Dr. Sullivan, Professor of Surgery, responded in a speech replete with eloquence. He congratulated the students on the success of their banquet, which, he said, was indicative of their culture and taste. He referred to the success which had attended the college since its establishment, a fact which was shown in the increased attendance and efficiency exhibited. In closing, he assured the students that the Faculty reciprocated their kindly sentiments.

Dr. A. Oliver, Professor of Institutes of Medicine, and Dr. T. R. Dupuis, Professor of Anatomy, also responded in suitable addresses.

Dr. Lavell proposed "Queen University" in felicitous terms, and Dr. K. A. Fenwick, M.A., M.R.C.S., Professor of Medical Jurisprudence, replied. He was glad that such a good feeling prevailed towards Queen's University, which at no time in its great history was so efficient as now. He alluded to the success of Principal Grant's Endowment Scheme, and concluded by proposing "Our Sister Universities," to which Messrs. H. H. Chown, B.A., and R. N. Horton made suitable responses on behalf of Victoria and Albert Universities respectively.

Mr. Leonard, from the vice-chair, proposed "Our Graduates," and Dr. Phalen responded, referring to the success of their graduates in the practice of the profession and to the high positions they had taken before the Examining Boards in Europe.

Dr. Sullivan, in complimentary terms, proposed "The Graduating Class," and Messrs. Hossie, W. F. Cleaver, R. K. Kilborn responded.

The toast to "Primary Class" brought forth acknowledgments from Messrs. Odlum, Dickson and Galbraith.

"The Sophomore Class" elicited suitable responses from Messrs. Reeve, McPhayden and Herrington.

"Our Freshmen," was drunk with great enthusiasm, and replied to by Messrs. Denike, Wallace and Chisholm.

"The Press" was the subject of a glowing eulogy by Dr. Stark, of Stormont, and was responded to by the representatives of the city press.

"Our Host," with all honours, cheers for "The Chairman" and "Our noble selves," and the singing "God Save the Queen," concluded a most enjoyable evening. The gathering was a success in every respect, and "the feast of reason and flow of soul" was in no measure marred by the total abstinence principles which strictly prevailed on the occasion.

Convocation of Trinity College.—At the annual Convocation of the University of Trinity College, there being a large attendance of friends, the following degrees of Medicine were conferred by the Chancellor:—M.D.—A. J. Sinclair, W. McKay. *Matriculation (Medicine)*.—H. A. Allen, W. L. Allen, L. Bentley, W. M. Brett, M. L. Cameron, J. F. Cattermole, F. D. Canfield, W. Fairbairn, A. Farncomb, C. M. Freeman, A. C. Gairdner, J. W. Hunter, J. M. Johnstone, J. P. King, F. Lundy, J. F. Martin, H. B. McCausland, H. R. McGill, W. F. McLean, N. McPhatten, D. A. McTavish, J. McWilliams, R. McWilliams, R. Patterson, A. Pringle, R. Raikes, T. M. Robinson, E. A. Spilsbury, A. N. Sloan, H. W. Smith, E. A. Smith, A. E. Stutt, G. H. Stark, E. D. Vandervoost, J. Walker, H. C. Wilson, F. A. Woolvester.

Canadians in England.—Drs. Luke Teskey and Charles Sheard have passed the primary examinations of the Royal College of Surgeons, England. Dr. Teskey has returned to Toronto for the winter.

TORONTO SCHOOL OF MEDICINE.

FIFTH ANNUAL DINNER.

The fifth annual dinner of the Toronto School of Medicine took place in the large dining hall of the Rossin House, on November 7th.

The hall was very neatly decorated with flags, amongst which were hung the mottoes of the School. The tables were very handsomely laid, and the *menu* did much credit to the cookery department of Mr. Irish's establishment. The attendance was large as the list of the guests shows. The chair was occupied by the Rev. Mr. McCarroll; the first vice-chairman was Mr. James A. Anderson; the second vice-chair was occupied by Mr. L. M. Sweetnam. Mr. H. C. VanNorman was Secretary to the Dinner Committee. Of the invited guests, there were present Hon. Chief Justice Moss, Prof. Goldwin Smith, Mr. John Gillespie, Mr. McCrosson, Dr. Strange, M.P.; the Rev. Dr. Nelles, President of Victoria University; Lieut.-Col. Otter; Dr. O'Reilly, of the Toronto General Hospital; Prof. Ramsay Wright, of the School of Practical Science; Dr. Kennedy; Dr. Daniel Clark, Medical Superintendent of the Toronto Asylum; Prof. Croft, Dr. I. H. Cameron, Dr. Langstaff, Dr. McConnell; Dr. T. White, of Hamilton; Dr. Pollard and the following members of the Faculty of the Toronto School of Medicine, Dr. Aikins, Dr. H. H. Wright, Dr. Barrett, Dr. U. Ogden, Dr. Richardson, Dr. Thorburn, Dr. W. W. Ogden, Dr. F. H. Wright, Dr. Zimmerman, Dr. Reeve, Dr. Graham, Dr. George Wright. There were also present a number of graduates. No wine was used during the evening, and the toasts were drunk in water. The band of the Queen's Own Rifles enlivened the evening before and during the dinner.

Dinner having been served and the cloth removed, the Chairman said he supposed if the public were present he might congratulate it upon having in its midst such an institution as the Toronto School of Medicine. In the absence of the public, however, he might congratulate the friends of the institution on the improvements which had been made in it, and the general advancement which had been effected in its ways and means of teaching. While doing so, he might assure the members of the faculty of the appreciation in which they were held by those who attended the School, on account of their efforts in behalf of the students and in behalf of the public, to whom they (the students) would in after years be called upon to minister. He concluded by proposing the health of the Queen.

Band—"God Save the Queen."

The Chairman then proposed the toast, "The Governor-General and the Lieutenant-Governor of Ontario," which was heartily received.

Band—"The Campbells are Coming."

Mr. VanNorman, Secretary of the Dinner Committee, read letters of regret at inability to attend from the Lieut.-Governor, the Mayor, Hon. O. Mowat, Mr. W. H. Howland, Dr. Workman, Dr. Baxter, M.P.P., Dr. Widdifield, M,P.P., Hon. Dr. Tupper, Prof. Loudon, Dr. McCaul, Dr. Sinclair, Dr. Covernton, and others.

The toast, "The Active Militia of Canada," was then proposed.

Lieut.-Col. Otter briefly thanked the assembly for the kind manner in which the toast had been received.

Dr. Thorburn also replied.

Song—"Florence Nightingale"—Mr. Manning and chorus of students.

The Chairman proposed the toast, "the Dominion and Local Governments."

Dr. Strange, M.P., who was called upon to reply, was cordially received, and replied to the toast in a very appropriate manner.

Mr. Jas. Anderson, of the School of Medicine, recited "Noodle's first speech in Parliament."

Toast—"The Mayor of Toronto and the City Council."

Duet by Messrs. Leslie and Marsh—"Larboard Watch."

Toast—"Prosperity to the University of Toronto," coupled with the names "Chief Justice Moss, Dr. Richardson, and Prof. Croft, D.C.L."

Chief Justice Moss, who was received with cheers, offered his thanks for the opportunity afforded him of being present. He was sure

his hearers would acquit him of any affectation when he said it was exceedingly pleasant to himself to meet those connected with the Toronto School of Medicine, for many associations clustered around him when he rose to address a body composed mainly of professors, with whom he had enjoyed intimate acquaintance, and of pupils whom he had had the privilege of investing with the degree of the University of Toronto. Regarding the latter class of persons, he hoped it would be his privilege to aid some of them to escape from the chrysalis state of the undergraduate and to assume the full plumage of the graduate—(applause)—and he hoped that the connection with any other matter in which feathers might be mentioned would end there. (Laughter.) He would not express his surprise at the hearty manner in which the toast of the University was received, because the connection between the University and the School had been so long and so intimate as to render it impossible that the students from the School should fail to wish the larger institution the fullest measure of prosperity. (Applause.) Many of our most distinguished medical men had received their training in the School and their degrees in the University, and therefore he might safely ask those present to sympathize with the University in its efforts in the direction of higher education, and to share in its triumphs. He would not speak of the triumphs of the University in the past because he felt he could look forward to still greater achievements in the future. The subject of the faculty of medicine had, as his hearers were aware, at no very distant period engaged the attention of the governing body of the University, and regarding it some changes had been made. All changes had some opponents, and he did not suppose that the curriculum recently adopted by the Senate had been accepted with universal favour by the students in the school. But, possibly, that curriculum resembled the prescriptions which it would be the aim of his hearers in the future to administer to their patients; it was likely to be salutary in its effects, though somewhat bitter to the taste at the moment. (Laughter and applause.) Among the advantages of the curriculum was the annual examinations. In law by such examinations, it had been found that the interest of the students had been greatly advanced, and he was sure that medical students, like the students in the sister profession, would be benefitted by the adoption of that system. In framing the curriculum, the Senate had regard to the advantages which the pursuit of the physical sciences was calculated to confer on the practice and study of medicine, and consequently established such advantages as they could in favour of those who, while pursuing the undergraduate course in the Faculty of Arts, and having their ultimate view fixed on the study of medicine, took an honour course in the physical sciences. He hoped for some good from even that trifling boon. He hoped for still more good from the establishment in the general course of a comparatively high standard in the physical sciences. Science and medicine had always, he contended, been co-workers, and medicine had profited largely by every step made in any branch of physical science. That connection instead of becoming more slender, must in the progress of time become stronger, and as medicine strove more and more to assume a place among the sciences, she would find her a most powerful ally among the physical sciences, and especially, as he thought, in the science of experimental physiology. He believed that the best physicians were fully satisfied with the belief that it was from the progress of experimental physiology in its larger sense that medicine might fairly hope to take its place among the exact sciences. He strongly recommended the establishment of laboratories, in which good practical work in the experimental sciences could be done, believing that a course in these sciences would greatly increase the usefulness of the students when they had become physicians. In conclusion, he said he had heard with pleasure of the connection of the Medical School with the arts of war; he had heard with pleasure of the position the profession occupied in the councils of the country, and he wished both the profession and the School still greater successs. (Applause.)

Dr. Richardson and Prof. Croft also replied.

Toast—"The College of Physicians and Surgeons."

Dr. Daniel Clark was called upon to reply, and spoke of the advantages to the profession and public of the standard of education adopted by the College.

Mr. James Anderson sang "The Learned Man," and Mr. Milne and Mr. Duncan sang the duet "All's Well."

Toast—The Toronto School of Medicine, coupled with the names of Dr. Aikins and Dr. Barrett.

Dr. Aikins responded. He said that the Faculty of the School of Medicine heartily desired the success of its pupils.

Dr. Barrett also replied. He pointed out that the number of pupils in the School was increasing every year, and that the facilities for teaching were improving. During the past year an additional building had been erected in connection with the School, and in that building would be found ample room for a laboratory for the study of experimental physiology.

Song and chorus—"Bright Star of Hope."

Mr. Anderson, one of the Vice-Chairmen, in a very humorous speech, proposed the toast, "The Toronto General Hospital."

Dr. O'Rielly and Mr. Gillespie replied.

Song by Mr. J. Lesslie—"Tom Bowling."

Mr. Sweetnam proposed the toast, "Sister Institutions," connected with which were the names of Prof. Goldwin Smith, Dr. Nelles, Prof. R. Wright, and Dr. Kennedy.

Prof. Goldwin Smith, in replying, said that as the hour was late he would not make a speech, but he supposed the University of Oxford, of which he was once an officer, might be called a sister institution, although she was rather an older sister and a larger one. The University of Toronto was the sister of that of Oxford, only in virtue of its aims and objects, but there was no reason why it should not in time attain to the greatness of Oxford, which could be effected if those who at some future day would be at the head of affairs—for such a change could hardly be expected in this generation—should tread the same path as the founders of universities in Europe, and instead of scattering their resources, concentrate them in one great university. When he was last at Oxford the subject of the possibility of restoring the connection between medical and university education was being debated. In former days the professions of medicine, law, and theology dwelt under the same academical roof, but in recent times law had migrated to the Inns of Court and other places where law was practised, and medicine had migrated to the great London hospitals. The question now was whether the connection could be restored. He trusted it would be, for it was to the interest of all professions that there should be no divorce between professional work and a liberal education. It was not to be expected, that the man who was to make his bread by his profession could devote himself to recondite subjects, but it was desirable that physicians should possess a good classical and liberal education. It was desirable for their own sakes, because it would add dignity to their lives; it was desirable for the patient under their treatment. It was also desirable for science, because only with such an education could the physician pick up matters for scientific investigation. He hoped that the union between the profession and the University might continue, and it would tend to make the lamp of science burn more brightly. (Applause)

Rev. Dr. Nelles responded on behalf of Victoria University, agreeing with the last speaker as to the importance of a close alliance between the professions and general culture. Young men in this country were so pressed to enter into the practice of their respective professions that their preparatory literary education was too often of a scanty and superficial character. Every inducement should be offered by all our educational institutions to secure for our young men, a broad, liberal culture as the basis of a sound professional training. This was all the more important because in this young country so few could afford to devote themselves entirely to literary pursuits like the distinguished gentleman who had last spoken. In alluding to the expected arrival of the Marquis of Lorne, he expressed the hope that that event and its concomitant circumstances would lead to a better understanding of Canadian affairs, and especially of Canadian geography on the part of English journalists.

Prof. Ramsay Wright responded on behalf of the School of Practical Science, remarking that

the establishment of that institution was a most important event in the educational history of the Province, and one for which the Ontario Government deserved the thanks of the community.

Dr. Kennedy responded on behalf of Trinity Medical School, expressing his pleasure at the kindly feeling that subsisted between it and the Toronto School. Both were working for the same object, and a little friendly emulation would do neither of them any harm. He bore testimony to the high character of the teaching in the Toronto School, and to the standing which Canadian medical men were acquiring in Great Britain.

The toasts, "The Graduates," "The Freshmen," "The Ladies," and "The Press" were then given and duly responded to, after which the gathering separated.

INFANTS' FOOD.—We have received a communication from a correspondent anent Infants' Food, in which the writer corroborates from his own experience the statement contained in Dr. Wright's paper on Infant Feeding, with reference to the laxative properties of Nestle's food. As, however, our correspondent is anonymous, it would be contrary to journalistic practice to insert his communication, notwithstanding the fact that his suggestion with regard to the use of Wyeth's Papoma may be a valuable one.

LUBIN'S PORTABLE TURKISH BATH.—We beg to draw the attention of our readers to the advertisement of the Lubin's Portable Turkish Bath, which appears in our advertising columns. They offer an article cheap, convenient, and efficient. Physicians will find it useful after attending cases of infectious diseases, such as puerperal fever, &c.

APPOINTMENT.—T. H. Smyth, B. Sc., Edinburgh, M.A., Toronto University, has been appointed Lecturer on Botany and Zoology at the Toronto School of Medicine.

ELASTIC ADHESIVE PLASTER.—Can be made by coating india-rubber with a plaster made of one pound of lead plaster and six drachms of resin.

MALTINE.—Read the advertisement.

Book Notices.

Wood's Physicians' Vade Mecum and Visiting List. Arranged and prepared by H. C. WOOD, M.D. Philadelphia: J. B. Lipincott & Co.

Annual Address delivered before the American Academy of Medicine, at Easton, Pa. By FRANK H. HAMILTON, A.M., M.D., LL.D., New York.

The Medical Journal Advertising Bureau Gazette. Published quarterly. Price 10 cents per copy; per annum, 25 cents in advance. C. W. BERNACKI, M.D., Editor and Publisher, New York.

Physicians' Visiting List for 1879. 28th year of its publication. Philadelphia: Lindsay & Blakiston. This Visiting List is too well known to need any commendatory notice. No better one is published.

The American Quarterly Microscopical Journal. This is a new quarterly, edited by Romyn Hitchcock, and published by Hitchcock & Wall, 150 Nassau Street, New York. The first number has reached us, and impressed us very favourably. We wish the editor all success. The journal is well prepared and well printed, the articles excellent, and the illustrations good. Each volume will consist of 350 pages of matter. Terms—one year, $3.00; single copies, 75 cents. It deserves the encouragement of all interested in microscopy.

The Nature and Treatment of Inebriety; also, *The Opium Habit and its Treatment.* By EDWARD C. MANN, M.D., Medical Superintendent of Sunnyside Medical Retreat, Washington Heights, New York. This pamphlet consists of a series of interesting addresses delivered at various times before the American Association for the Cure of Inebriates.

I. "Intemperance and Dipsomania as related to Insanity."

II. "State medicine in relation to the Intemperate and the Inebriate."

III. "The Relation and Hereditary Tendency between Inebriety and Epilepsy."

IV. "The Causes of Premature Mental Decay and Nervous Exhaustion, induced by Inebriety, and their Treatment."

V. "The Pathological and Psychological Action of Opium, and its effects upon the Human Race."

In chap. V., "On Treatment," the author speaks of constant and induced currents of electricity as *the* remedy in nerve exhaustion and mental decay. Phosphorus, cod-liver oil, strychnine, quinine, Zinc phosphide, Indian hemp, monobromide of camphor, prolonged warm baths, &c., are the remedies recommended to meet the various symptoms.

Reviews of the following publications will appear next month :—

The Science and Practice of Surgery, including special chapters by different authors, with 969 illustrations on wood, mostly new and original. By Frederick James Gant, F.R.C.S. Second edition, in two volumes, pp. 1787. Revised and re-written, and much enlarged throughout. London : Ballière, Tindall & Cox ; Philadelphia : Lindsay & Blakiston ; Toronto : Willing & Williamson.

Brain. A quarterly journal of neurology. Edited by J. C. Bucknill, M.D., F.R.C.P., F.R.S., J. Critchton-Browne, M.D., F.R.S.E., D. Ferrier, M.D., F.R.C.P., F.R.S., and J. Hughlings Jackson, M.D., F.R.C.P. London and New York : Macmillan & Co. July, 1878. Part II., price $1.25 ; yearly subscription, $4.00. Willing & Williamson.

Habitual Drunkenness and Insane Drunkards. Dr. Bucknill, F.R.S. London : Macmillan & Co., 1878. Toronto : Willing & Williamson. Price $1.00.

Practical Surgery, including Surgical Dressings, Bandaging, Ligations, and Amputations. By J. Ewing Mears, M.D. Philadelphia : Lindsay & Blakiston.

The Cell Doctrine ; its History and Present State. By James Tyson, M.D. Philadelphia : Lindsay & Blakiston.

Diseases of the Bladder and Urethra in Women. By A. J. C. Skene, M.D. New York : W. Wood & Co. ; Toronto : Willing & Williamson.

A book of this kind has been very much needed by the profession, and the author's well-known position as a gynæcologist eminently fits him for the task of its production.

Diseases of this class occur to the practitioner every day, and we have long felt the want of some safe guide to their diagnosis and treatment. Such we have found in Dr. Skene's book, which is plain, practical, and short.

We have been much pleased with the lecture on functional diseases of the bladder, wherein he speaks of that very troublesome affection, nocturnal incontinence of urine in children and adults, simply because he has the courage to say that some cases will not be cured by any treatment whatever. He divides these cases into two classes or types. First, the anæsthetic ; second, the hyperæsthetic, or irritable bladder. Each may exist alone or both at the same time. In the first the retaining power of the sphincter is defective, and the fault is probably in the vesical nerves. In the second there is an irritable condition of the bladder which renders its expelling power greater than that of retention.

In some cases he says the cure is easily effected ; in others it cures itself at or just after puberty ; but in a few no medical or other means afford any relief. The treatment is not always satisfactory. In anæthesia, local or general, stimulate. In hyperæthesia, allay irritability. In some cases syr. ferri iodid has effected a cure in a few days by its action on the blood and general system. In some cases belladonna will act satisfactorily, but in others it will fail. Sometimes a combination of belladonna and chloral hydrat. or narcotics and tinct. ferri chlorid, will succeed. Oil of sandalwood has done well in some cases. While narcotics are hurtful in the anæsthetic cases, such remedies as strychnia, quinine, and iron may prove useful. He advises the heartiest meal to be taken in the middle of the day, and but little towards evening, plain, unseasoned food, without tea or coffee, and early hours of retiring. He insists that children who are subject

to it should not be sent to school too early. He gives two excellent lectures on the different forms of cystitis, their etiology, pathology, symtomatology, and treatment; the different methods of examining the bladder and urethra, and of applying remedies. He utters a well-timed caution in regard to extreme dilatation of the urethra, an operation in which there is great danger of lacerating the canal, and which will sometimes occur to the most skilful operator even when every effort is made to prevent it. It has been found that the tissues sometimes give way suddenly where the operator was proceeding carefully, and that permanent incontinence is the result, for even restoration of the urethra *does not* restore the retaining power of the bladder. Under these circumstances, it is well that caution should be observed, for since Mr. Heath proposed rapid dilatation of the urethra for irritability of the bladder, that practice has been rather too common. It is only a few months since we saw a fine young woman who was invalided for life by an attempt at rapid dilatation, which resulted in complete destruction of the whole length of the urethra, with incontinence of urine, and violent vesical tenesmus, under the influence of which the general health was completely broken down. But the whole book is worthy of its distinguished author. It treats of a class of diseases met with every day, and about which little is to be found in the ordinary text-books on gynæcology or general surgery. We heartily commend it to the profession.

Physics of the Infectious Diseases. By C. A. Logan, A.M., M.D. Chicago: Jansen, McClurg & Co.

This is a very pretty little book of 212 pages, being beautifully printed on nice paper, made up of the author's observations and reflections during a residence of four years in the capacity of American minister to Chili, treats of a great variety of subjects, considering the size of the book, and while some of his views are decidedly novel and open to criticism, a good deal can be said in support of others. Under the head of "Physical Aspects of the Pacific Coast," he discusses the subject of earthquakes and their relation to thunderstorms, the influence of mountains on climate, the subject and source of wind and rain, the source and property of ozone, the forces of nature, &c., &c.

Then he speaks of its medical aspects, and gives some very interesting information in regard to the sanitary condition of the cities of that region, whereby it appears, that, notwithstanding the utter neglect of all sanitary rules, there is an immunity from zymotic diseases that is truly wonderful. "Ravaging epidemics, afflicting other parts of the world with such great mortality, are entirely unknown by like results in any portion of that region, with the exception of small-pox," which is almost always present, and seems to have lost its identity in some respects, as vaccination affords no protection against it, many persons taking the disease three or even four times, although it remains true to its type in mortality, which sometimes reaches fifty per cent., but the prevalence of the general class of acute infectious diseases is inversely to the electric energy of the locality. The author says that venomous reptiles and insects have no natural existence throughout the whole Pacific coast, and Quito, a city of 40,000 inhabitants, with the country for many miles around, nearly under the equator, at an elevation of 10,000 feet above the sea, is one of the healthiest places on the globe, consumption, dysentery, and fevers being almost unknown. It should therefore be a choice place to live in, were it not for the "*terremoto*," which have a rather familiar way of shaking people up, for he tells us he has a record of the phenomena of three hundred earthquakes that occurred during three successive years; but, after all, it is simply a matter of taste or choice between scorpions, lizards, and snakes, on the one hand, and earthquakes, with their attendant phenomena, on the other. The author's theory that the earthquake is the result of electrical or magnetic disturbance, and can be absolutely prevented by levelling down all the mountains of the world to a height permitting of an unobstructed and regular annual rainfall in its various parts, will probably be somewhat criticised by scientists, and yet he gives some

strong evidence in favour of his propositions. He believes that ozone is a strong factor in the sanitary condition of earthquake and volcanic regions, and we think there is ground for the belief. Speaking of the influence of bacteria, in the production of disease, he says, that, "in view of all the evidence, it is not a fair inference that the infectious diseases are caused by bacterial germs."

Chapters on the "forces of nature," and the "ideal functions of the nervous system," are too metaphysical for our comprehension, and we must refer the reader to the book itself for the true exposition of the author's views on these points, premising that while there is a good deal of fine writing, the point of which is hard to discover, there is also much that is calculated to stimulate thought and afford satisfaction to the enquiring student.

Miscellaneous.

Treatment of Whooping Cough by Tincture of Myrrh.—(By Campardon.)—Whooping Cough yields easily and rapidly to the alcoholic tincture (15 drops to the tablespoonful) in quinine wine or Vichy water. A tablespoonful every hour or two. This treatment in no way interferes with the appropriate remedies for the tracheo-bronchitis or the pulmonary congestion. —*Bull. Thér. Lyon Méd.*

Glycerin of the Oxide of Zinc, (F. Pollet). —Glycerine ʒiv, starch ʒij, oxide of zinc ʒi, mix. For the dressing of rhagades and chronic inflammation of the anus. Rhagades, which are little fissured ulcerations, situated in the natural folds of the anus, or frequently at the base of, or in the angle formed by mucous patches, vegetations or condylomata, often yield to simple cleanliness, to dressings with aromatic wine, or light cauterizations with nitrate of silver. It is when they are rebellious to these means that recourse is had to the glycerine of zinc. In point of fact, in order to obtain a definitive cure, it is first of all necessary to dissipate the lesions which give rise to the rhagades, and of which they are only a complication.—*L'Union Médicale.*

Colic Cured by Standing on the Head.—Dr. D. L. Phares, in *Trans. Mississippi S. Med. Association*, 1878, recommends as a prompt and effectual cure in many cases of colic, to place the patient in an inverted posture. Some cases which have resisted the ordinary treatment for hours and even days, have by this simple means been relieved and permanently cured in from one to five minutes. Sometimes relief appears to be afforded from the escape of air from the rectum. In other instances, the air in the bowels changes its place, to the relief of the patient. Some movement of gas in the intestines appears to be essential to relief by this method. Of course it is only flatulent colic which can be permanently relieved by this treatment. The confidence with which Dr. Phares asserts the success of the plan entitles it to a trial. The treatment could be easily applied in popular practice. The patient might at least be held up by the heels till the arrival of the doctor, (provided he comes within a few hours).

Births, Marriages, and Deaths.

BIRTHS.

In Cayuga, on November 1st, the wife of Dr. Baxter, M.P.P., of a son.

MARRIAGES.

On October 22nd, at Berlin, Ont., E. P. Clement, Barrister, to Janie, eldest daughter of D. S. Bowlby, M.D.

On November 14th, at Paisley, Stuart McArton, M.D., M.C.P.S., Ont., to Annie, only daughter of the Rev. James Chance.

On October 29th, J. E. Eakins, M.D., L.R.C.S., and L.R.C.P., Edin., to Nettie, eldest daughter of Sydney Warner, Esq., Wilton.

At Toronto, on October 29th, Arthur H. Hughes, Esq., M.D., L.R.C.P.E., M.R.C.S., England, Professor in Grant Medical College, Bombay, to Louisa Rosalind, youngest daughter of H. G. Bannard, Esq., of Toronto.

On November 20th, at St. Paul's Church, Yorkville, George McNairn Shaw, M.B., of Hamilton, to Isabel Thorburn, eldest daughter of John Symons, Esq., Avenue Road, Yorkville.

DEATHS.

At Toronto, on October 31st, Irwin Bridgman, M.D., aged 33 years and 7 months.

At Fenwick, on November 17th, Dr. H. R. Haney, M.P.P. for Monck, aged 43.

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